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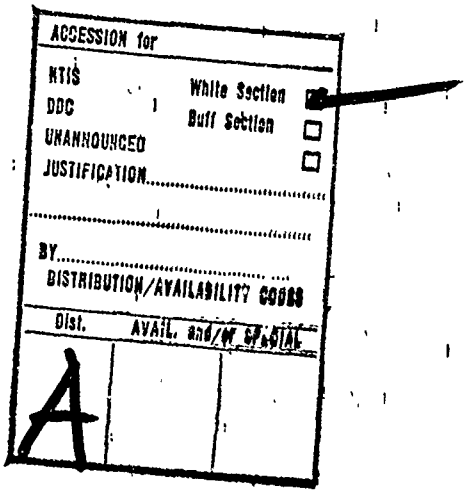
Atmospheric Attenuation of HF and DF Laser Radiation

R.A. McCLATCHEY
J.E.A. SELBY

AIR FORCE SYSTEMS COMMAND
United States Air Force



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13. ABSTRACT

With the development of HF and DF lasers having emission lines in the range from 2800 to 3700 cm^{-1} (HF) and 2000 to 2750 cm^{-1} (DF), it is of importance to establish which of the more than 100 lines can be transmitted through a variety of atmospheric paths. The spectral region of HF emission spans a very important water vapor absorption band and, in addition, there is strong absorption by CO_2 and weaker absorption by ozone and methane. The spectral region of DF emission covers the very strong 4.3 μm CO_2 absorption band and weaker absorption by N_2O and HDO at higher frequencies (low DF vibrational transitions). There is some weak ozone absorption also in the region of DF emission. Absorption lines associated with all of these molecules were included in the calculation of synthetic spectra covering the region of HF and DF emission. After limiting the number of emission lines to be considered in detail according to a criterion based on atmospheric attenuation, a series of tables was constructed providing quantitative attenuation information for each of 97 laser lines and for 10 different atmospheric models. Data based on two different aerosol scattering models are included in these tables.

It is concluded that due to both atmospheric attenuation and laser emission energy, it is advantageous in general to develop laser systems using the higher vibrational transitions of the HF emission and the lower vibrational transition of the DF emission.

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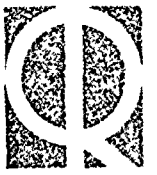

OPTICAL PHYSICS LABORATORY PROJECT 7670

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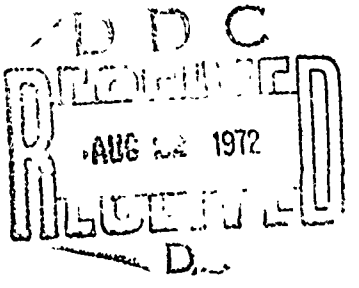

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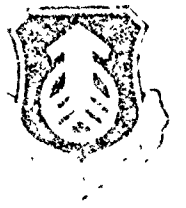

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Abstract

With the development of HF and DF lasers having emission lines in the range from 2800 to 3700 cm^{-1} (HF) and 2000 to 2750 cm^{-1} (DF), it is of importance to establish which of the more than 100 lines can be transmitted through a variety of atmospheric paths. The spectral region of HF emission spans a very important water vapor absorption band and, in addition, there is strong absorption by CO_2 and weaker absorption by ozone and methane. The spectral region of DF emission covers the very strong 4.3 μm CO_2 absorption band and weaker absorption by N_2O and HDO at higher frequencies (low DF vibrational transitions). There is some weak ozone absorption also in the region of DF emission. Absorption lines associated with all of these molecules were included in the calculation of synthetic spectra covering the region of HF and DF emission. After limiting the number of emission lines to be considered in detail according to a criterion based on atmospheric attenuation, a series of tables was constructed providing quantitative attenuation information for each of 97 laser lines and for 10 different atmospheric models. Data based on two different aerosol scattering models are included in these tables.

It is concluded that due to both atmospheric attenuation and laser emission energy, it is advantageous in general to develop laser systems using the higher vibrational transitions of the HF emission and the lower vibrational transition of the DF emission.

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Illustrations

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Atmospheric Attenuation of HF and DF Laser Radiation

1. INTRODUCTION

The development of HF and DF lasers and the potential application of these lasers to problems involving transmittance paths in the atmosphere requires an understanding of the attenuation characteristics of the atmosphere for the specific frequencies of laser emission. There are a great many HF and DF laser frequencies (Deutsch, 1967; Basov et al., 1971), and the atmospheric attenuation for each one may be quite different. The reported laser emission frequencies range from about 2000 cm^{-1} to over 2750 cm^{-1} for DF and from 2800 cm^{-1} to over 3700 cm^{-1} for HF.

In the region of the HF emission lines, there is strong absorption due to the 2.7 μm bands of both H_2O and CO_2 (see Gates et al., 1964; Calfee and Benedict, 1966). Since the low-lying vibrational lines of HF occur near these atmospheric band centers, an improvement in atmospheric transmittance can generally be obtained by considering the higher-lying vibrational transitions. There is also weaker, but significant absorption by ozone (McCaa and Shaw, 1967) and methane (Kyle, 1968) in the same spectral region, and all of these absorbing constituents were considered in the computations contained in this report.

In the region of the DF emission lines, there is strong absorption due to the 4.3 μm band of CO_2 (Gray and McClatchey, 1964; Gryvnak et al., 1966). However,

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this absorption becomes important for frequencies below about 2400 cm^{-1}, and at higher frequencies, the atmosphere is much more transparent except in localized regions near individual spectral absorption lines of N_2O and HDO. At even lower frequencies corresponding to higher DF vibrational transitions, there is considerable absorption due to N_2O, CO, O_3, and N_2. The spectral region covered in this report includes a large number of absorption lines, all of which are pressure-broadened under atmospheric conditions so that some molecular absorption occurs at all frequencies where either HF or DF lasers emit.

In addition to molecular absorption, three other sources of attenuation should be considered (McClatchey et al., 1970): molecular (or Rayleigh) scattering, aerosol scattering, and aerosol absorption. Attenuation due to molecular scattering (σ_m) is easily computed and is found to be less than 10^{-6} per km at all altitudes and is thus completely negligible. Aerosol attenuation (both absorption and scattering) can be significant, so examples of this attenuation for two specific aerosol models have been included (see Figures 1a and 1b). It should be noted that aerosol attenuation is a very slowly varying function of frequency and, therefore, provides a quasi-continuum attenuation over the whole spectral range of interest, whereas the molecular absorption is highly frequency-dependent. Thus, molecular absorption determines the relative "windows" where the transmittance of an HF or DF laser beam is greatest. It should be noted (see Appendix B) that the predicted molecular absorption for some DF laser emission lines is sufficiently low that aerosol effects (both absorption and scattering) are predicted to dominate the attenuation.

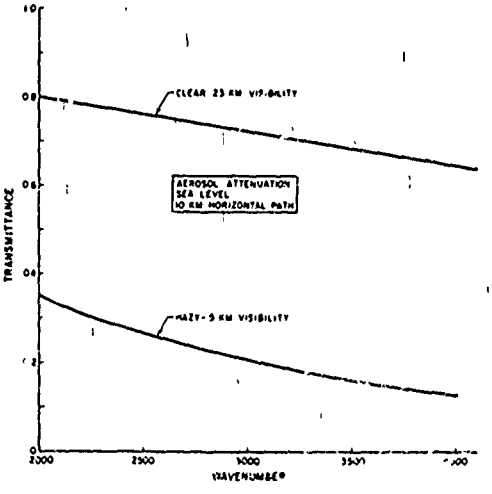

Figure 1a. Atmospheric Transmittance due to Aerosols Through a 10-km Horizontal Path at Sea Level in a "clear" and a "hazy" Atmosphere

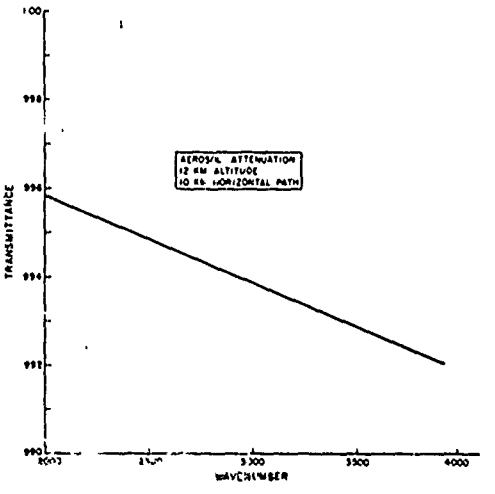

Figure 1b. Atmospheric Transmittance due to Aerosols Through a 10-km Horizontal Path at an Elevation of 12 km

2. LASER EMISSION FREQUENCIES

Since the frequencies of the atmospheric absorption lines are known quite accurately ($\pm 0.01\ cm^{-1}$), it is important that the laser frequencies used in our calculations be known to similar accuracy. The list of measured laser frequencies given by Deutsch (1967) has been used where available and the remaining lines used are as calculated by Basov et al. (1971). The frequencies of the HF and DF lines are presented in Table 1 and Table 2, respectively. Computations of atmospheric attenuation were made for each line appearing in Table 1 and Table 2. The column in Tables 1 and 2 associated with each laser frequency gives the attenuation per kilometer computed on the basis of the Midlatitude Winter Model (see Section 3). This gives a good idea of the relative atmospheric attenuation for all lines. In the interest of minimizing the size of this report, it was decided to reduce the number of laser emission lines for which detailed results are given in Appendices A and B according to the following scheme: using the Midlatitude Winter attenuation coefficient at sea level as a guide (see Tables 1 and 2), charts were not included in Appendices A and B if $k_{mw} > 10.0$.

Table 1. HF Laser Frequencies According to Deutsch (1967) and Basov et al. (1971) for which Attenuation Coefficients have been Computed. The attenuation coefficients included in this table refer to molecular absorption through a 1-km horizontal path at sea level. An asterisk (*) indicates that detailed information has been provided in Appendix A

Rot. ID	ν	k_{mw}	Rot. ID	ν	k_{mw}
	1-0 Band			2-1 Band	
P6	3693.50	39.3	* P11	3282.86	4.31
P7	3644.16	17.1	* P12	3230.18	3.61
P8	3593.80	31.2	* P13	3176.60	0.369
* P9	3542.20	2.69	* P14	3122.14	4.09
* P10	3489.59	0.537	P15	3067.22	16.6
* P11	3436.12	0.221			
* P12	3381.50	0.0751		3-2 Band	
* P13	3326.21	1.69	P2	3544.51	12.2
* P14	3269.90	0.285	* P3	3503.80	6.61
* P15	3212.80	0.529	P4	3461.54	23.6
			* P5	3418.16	1.36
	2-1 Band		* P6	3373.46	0.0537
P2	3708.86	129.0	* P7	3327.73	1.27
P3	3666.38	11.3	* P8	3280.64	1.06
P4	3622.71	29.7			
P5	3577.47	20.7		4-3 Band	
P6	3531.31	30.9	* P5	3262.53	0.448
* P7	3483.63	0.882	P6	3219.50	22.4
* P8	3435.17	0.209	* P7	3175.34	0.565
* P9	3385.34	4.00	* P8	3130.09	0.148
* P10	3334.55	3.07	* P9	3083.83	0.211

Table 1. HF Laser Frequencies According to Deutsch (1967) and Basov et al. (1971) for which Attenuation Coefficients have been Computed (Cont)

Rot. ID	ν	k_{mw}	Rot. ID	ν	k_{mw}
	5-4 Band			6-5 Band	
* P4	3150.67	0.126	* P5	2961.68	0.976
* P5	3110.34	3.17	* P6	2921.74	0.0453
* P6	3068.63	0.209	* P7	2880.70	0.00424
* P7	3026.21	0.780	* P8	2838.59	0.0654
* P8	2982.51	0.449			
* P9	2937.79	0.882			

*Indicates that detailed information has been provided in Appendix A

Table 2. DF Laser Frequencies According to Deutsch (1967) and Basov et al. (1971) for which Attenuation Coefficients have been Computed. The attenuation coefficients included in this table refer to molecular absorption through a 1-km horizontal path at sea level. An asterisk (*) indicates that detailed information has been provided in Appendix B

Rot. ID	ν	k_{mw}	Rot. ID	ν	k_{mw}
	1-0 Band			3-2 Band	
* P10	2665.20	0.00752	* P12	2445.29	0.0725
* P12	2611.10	0.00377	* P13	2419.02	0.0885
* P15	2527.06	0.0155	* P14	2392.46	0.119
* P16	2498.02	0.0282			
				4-3 Band	
	2-1 Band		* P5	2532.50	0.0143
* P3	2750.05	0.00898	* P6	2509.86	0.0218
* P4	2727.38	0.00653	* P7	2486.83	0.0349
* P5	2703.98	0.00171	* P8	2463.25	0.0563
* P6	2680.28	0.0139	* P9	2439.29	0.0758
* P7	2655.97	0.0134	* P10	2414.89	0.0921
* P8	2631.09	0.00348	* P11	2390.07	0.287
* P9	2605.87	0.00776			
* P10	2580.16	0.0295		5-4 Band	
* P11	2553.97	0.0163	* P7	2404.63	0.0965
* P12	2527.47	0.0152	P8	2381.73	64.7
* P13	2500.32	0.0265	P10	2334.63	270.0
* P16	2417.27	0.0901	P11	2310.45	183.0
* P17	2388.79	0.56	P12	2285.88	18.7
			* P13	2260.92	4.13
	3-2 Band				
* P3	2662.17	0.0079		6-5 Band	
* P4	2640.04	0.00914	* P4	2388.02	1.97
* P5	2617.41	0.00276	P7	2323.89	77.1
* P6	2594.23	0.00557	P8	2301.60	52.5
* P7	2570.51	0.0560	P9	2278.87	15.0
* P8	2546.37	0.0356	P10	2255.71	11.4
* P9	2521.81	0.0164	* P11	2232.15	0.571
* P10	2496.61	0.0298			
* P11	2471.34	0.0491			

Table 2. DF Laser Frequencies According to Deutsch (1967) and Basov et al. (1971) for which Attenuation Coefficients have been Computed (Cont)

Rot. ID	ν	k_{mw}	Rot. ID	ν	k_{mw}
	7-6 Band			8-7 Band	
* P5	2286.45	3.53	* P9	2123.24	0.0296
* P6	2265.65	1.87	* P10	2101.27	0.0322
* P7	2244.38	2.79	* P12	2056.14	0.0222
* P8	2222.68	0.233	* P13	2033.01	0.0198
* P9	2200.54	0.352			
* P10	2177.99	0.0979		9-8 Band	
* P11	2155.03	0.0344	* P6	2108.48	0.0172
* P12	2131.68	0.187	* P7	2088.34	0.0567
	8-7 Band		* P8	2067.76	0.112
			* P9	2046.77	0.262
* P5	2206.87	0.453	* P10	2025.36	0.0864
* P6	2186.63	0.483	* P11	2003.56	0.0480
* P7	2165.93	0.0459	* P12	1981.38	0.0557
* P8	2144.80	0.129			

*Indicates that detailed information has been provided in Appendix B

3. ATMOSPHERIC MODELS

The atmospheric models used in the computations have been fully described by McClatchey et al. (1970), and so only a brief sketch will be provided here. Five model atmospheres for pressure, temperature, H_2O, and O_3 distributions have been used and are referred to as Tropical, Midlatitude Summer, Midlatitude Winter, Subarctic Summer, and Subarctic Winter. They refer to models of the same names defined in the Handbook of Geophysics and Space Environment (Valley, 1965). Because the major effect these five different models have on the computations in this report is due to the differences in water vapor distribution, Table 3 indicates the water vapor amounts in a 10-km sea level path, a 10-km horizontal path at 12-km altitude, and in a vertical path through the entire atmosphere. The water vapor distribution in all models is identical above 11-km altitude.

In addition to the five models described above, computations were made for two aerosol models (see Figures 1a and 1b). The details of these models are also described by McClatchey et al. (1970). Briefly, the two models describe a "clear" and "hazy" atmosphere corresponding to a ground level visibility of 23 and 5 km, respectively. The aerosol size distribution function for both models is the same

Table 3. Amount of Water Vapor (precipitable centimeters) in the Five Model Atmospheres for which Calculations have been made

	Tropical	Midlat. Summer	Midlat. Winter	Subarc. Summer	Subarc. Winter
10-km Horizontal Path at Sea Level	19.0	14.0	3.50	9.10	1.20
10-km Horizontal Path at 12-km Altitude	0.006	0.006	0.006	0.006	0.006
Vertical Path from Sea Level to Space	4.13	2.93	0.853	2.08	0.419

at all altitudes and similar to one suggested by Deirmendjian (1963) for continental haze. It differs from Deirmendjian's model "C" in that the large particle cut-off has been extended from 5 μm to 10 μm.

The refractive index for the aerosols is assumed real for $\lambda \leq 0.6\ \mu$m. For $\lambda > 0.6\ \mu$m, the imaginary part is assumed to increase linearly to a value of 0.1 for $\lambda \geq 2\ \mu$m. This model is based on measurements by Volz (1957).

The total numbers of aerosol particles per unit volume for the "clear" atmosphere have been adjusted to give an extinction coefficient at $\lambda = 0.55\ \mu$m identical to the attenuation model of Elterman (1968 and 1970) at each altitude. The "clear" and "hazy" models are identical above 5 km. Below 5-km altitude, the number of aerosol particles in the "hazy" model increases exponentially to a value corresponding to a ground visibility of 5 km.

4. COMPUTATIONAL TECHNIQUES FOR MOLECULAR ABSORPTION

In the spectral region covered, molecular absorption by water vapor, carbon dioxide, nitrous oxide, ozone, carbon monoxide, methane, and nitrogen occurs. Carbon dioxide, nitrous oxide, methane, and carbon monoxide were taken to be uniformly mixed by volume in the atmosphere at 330 ppmv, 0.28 ppmv, 1.6 ppmv, and 0.075 ppmv, respectively. The water vapor and ozone were distributed according to the models described above. A Lorentz line shape as given in Eq. (1) was assumed for each line.

$$k_m = \frac{S\alpha}{\pi\left[(\nu - \nu_0)^2 + \alpha^2\right]}, \qquad (1)$$

in which S is the line intensity, α is the line half-width, ν_o is the central line frequency, and ν is the laser frequency. For pressures less than 10 mb, a Voigt profile was used in the calculations (see Young, 1965). The laser frequency (ν) was assumed monochromatic for the purposes of this calculation. In general, a large number of absorption lines belonging to different molecules contribute to the attenuation at any specific laser frequency, so the total optical depth (O. D.) must be evaluated and is given by Eq. (2).

$$\text{O. D.} = \Sigma_j \Sigma_i \frac{S_{ij}\, \alpha_{ij}\, m_j}{\pi\left[(\nu - \nu_{ij})^2 + \alpha^2_{ij}\right]}, \qquad (2)$$

where m_j represents the amount of the j^{th} absorbing gas.

Pressure broadening enters through the α_{ij} values in Eq. (2). The Lorentz line width is given by

$$\alpha = \alpha_o P/Po \sqrt{\frac{To}{T}} .$$

The line intensity (S) is also temperature dependent through the population of the lower state of the transition and through the partition functions. These pressure and temperature effects have been included for all lines. The wings of all lines within $\pm 20\ cm^{-1}$ of frequency, ν, were considered to contribute to the absorption coefficient at frequency ν.

5. RESULTS

Figures 2a through 2k provide a high resolution (infinite resolution) transmittance spectrum for a 10-km horizontal path at sea level corresponding to the Midlatitude Winter model atmosphere. These curves cover the entire spectral region 2120 to 3740 wavenumbers. The resulting curves for frequencies in the range 2240 to 2360 cm^{-1} and 3500 to 3740 cm^{-1} were entirely black (transmittance $\leq 10^{-3}$).

Figures 3a through 3n provide a high resolution transmittance spectrum for a 10-km horizontal path at a 12-km (approx. 40,000 ft) altitude.

Figures 2 and 3 are intended to provide the reader with a quick method for estimating the relative attenuation of the various HF and DF laser lines. These figures taken together with similar figures presented by McClatchey (1971), provide synthetic atmospheric spectra for sea level and 12-km altitude for the entire spectral region from 1400 to 3740 cm^{-1}.

Having made this quick estimate, Appendices A and B provide detailed quantitative information on attenuation for each of the model atmospheres described above. The notations used in the column headings should be read as follows:

k_m = molecular absorption coefficient,

σ_m = molecular scattering coefficient,

k_a = aerosol absorption coefficient,

σ_a = aerosol scattering coefficient.

All attenuation coefficients are given in units of km^{-1}. Zero entries indicate that the computed value is less than 10^{-6}. The total attenuation coefficient per kilometer is given by Eq. (3).

$$\gamma = k_m + \sigma_m + k_a + \sigma_a . \tag{3}$$

For horizontal paths, γ can be simply multiplied by the range, R, in km in order to determine the total optical depth. The transmittance is then given by Eq. (4)

$$\tau = \exp(-\gamma R) . \tag{4}$$

If the atmospheric transmittance is required for a vertical or slant path, the entries in Appendix A or B must be summed (excluding the first entry) between the two altitude levels of interest and multiplied by the height increment (ΔH = 1 km below 25 km). The result should be multiplied by the appropriate sec θ (where θ is the zenith angle) value to determine the total optical depth. The transmittance is then given by Eq. (5). The use of sec θ in Eq. (5) must be restricted to $\theta \leq 80^{\circ}$. For larger angles, curvature and refractive effects become increasingly important, and sec θ must be replaced by an appropriate air mass parameter (see McClatchey et al., 1970)

$$\tau = \exp - (\sec \theta \Sigma_k \gamma_k \Delta H_k) . \tag{5}$$

A general conclusion that can be drawn from Figures 2 and 3 and the charts presented in Appendices A and B is that, in general, atmospheric attenuation is less for the higher HF vibrational transitions and for the lower DF vibrational transitions. According to Basov et al. (1971), the relative energy of the emission lines remains substantial for the higher vibrational HF lines but decreases markedly

for the higher vibrational DF lines. Thus, atmospheric attenuation should probably be used as the primary guide for laser systems intended to utilize HF or DF lasers in the atmosphere.

Special note should be made of the spectral region shown in Figures 2b-2c. Absorption due to N_2 is responsible for the continuous underlying absorption in this region. For example, at 2400 cm^{-1} the sea level transmittance over a 10 km horizontal path (See Figure 2b) is 0.38. However, due to the dependence of this absorption on the square of the pressure, the transmittance increases rapidly with height as can be seen in Figures 3c-3d.

An example of the use of the data presented in Figures 2 and 3 and Appendices A and B follows. An examination of Figure 2d shows at a glance that there is a relative transmittance maximum near 2632 cm^{-1}, and (from Appendix B) the P8 line of the 2-1 vibrational band of DF located at 2631.09 is very close to this maximum.

Having determined that this line is a relatively good line to work with in terms of atmospheric attenuation, reference can now be made to the appropriate page of Appendix B. Here, we can determine, for example, that the optical depth per kilometer at sea level corresponding to the Midlatitude Winter Model and neglecting aerosol scattering and absorption effects is 0.00348. For a 10-km horizontal path at sea level, the optical depth is thus 0.0348 and the transmittance is exp (-0.0348) = 0.966. If aerosol effects are to be included, the attenuation coefficients (or optical depths) must first be added and then transmittance determined according to τ = exp (-optical depth). The resulting transmittance for a 10-km horizontal path at sea level including aerosol effects is 0.726 for the "clear" aerosol model and 0.240 for the "hazy" model.

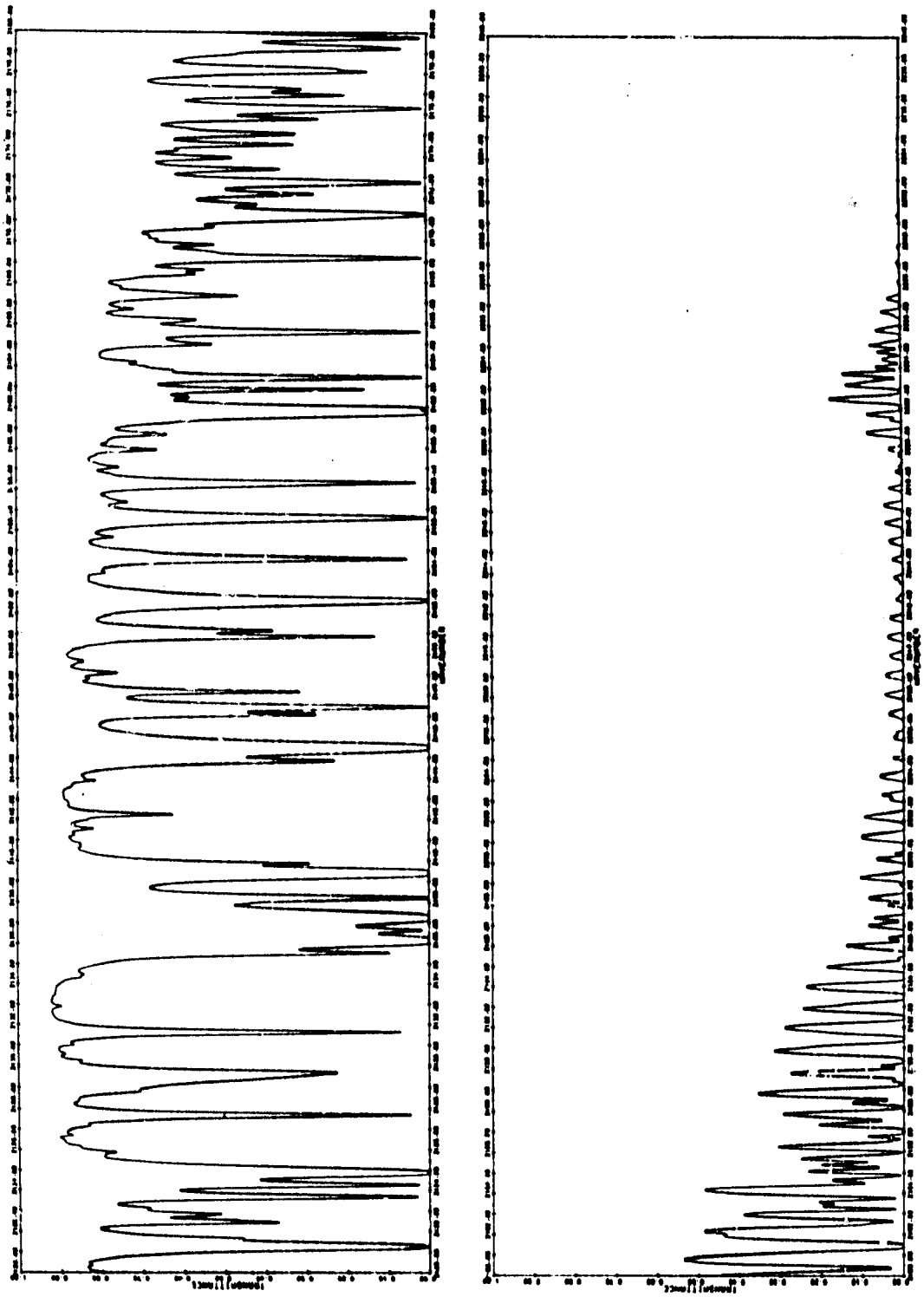

Figure 2a. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

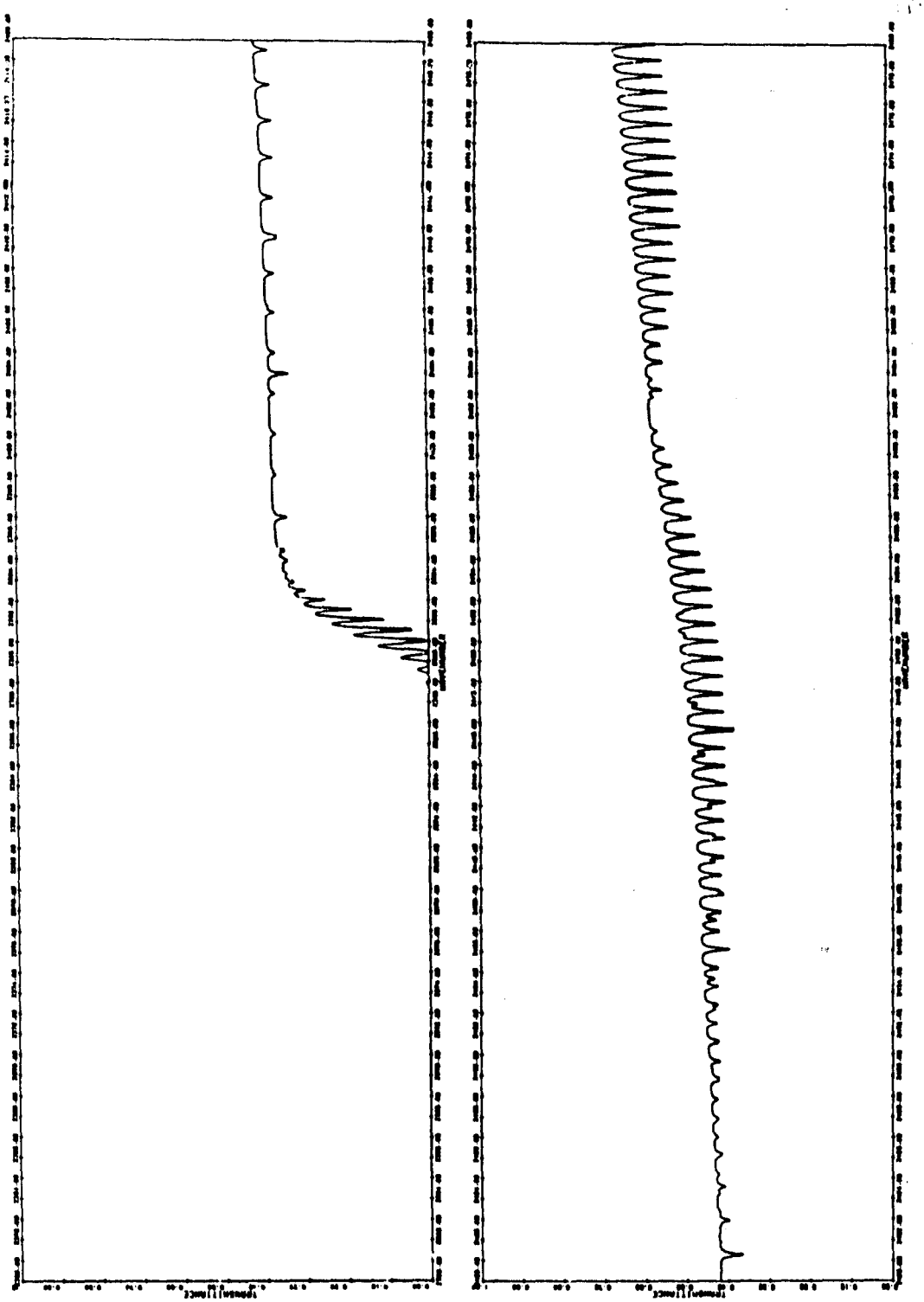

Figure 2b. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

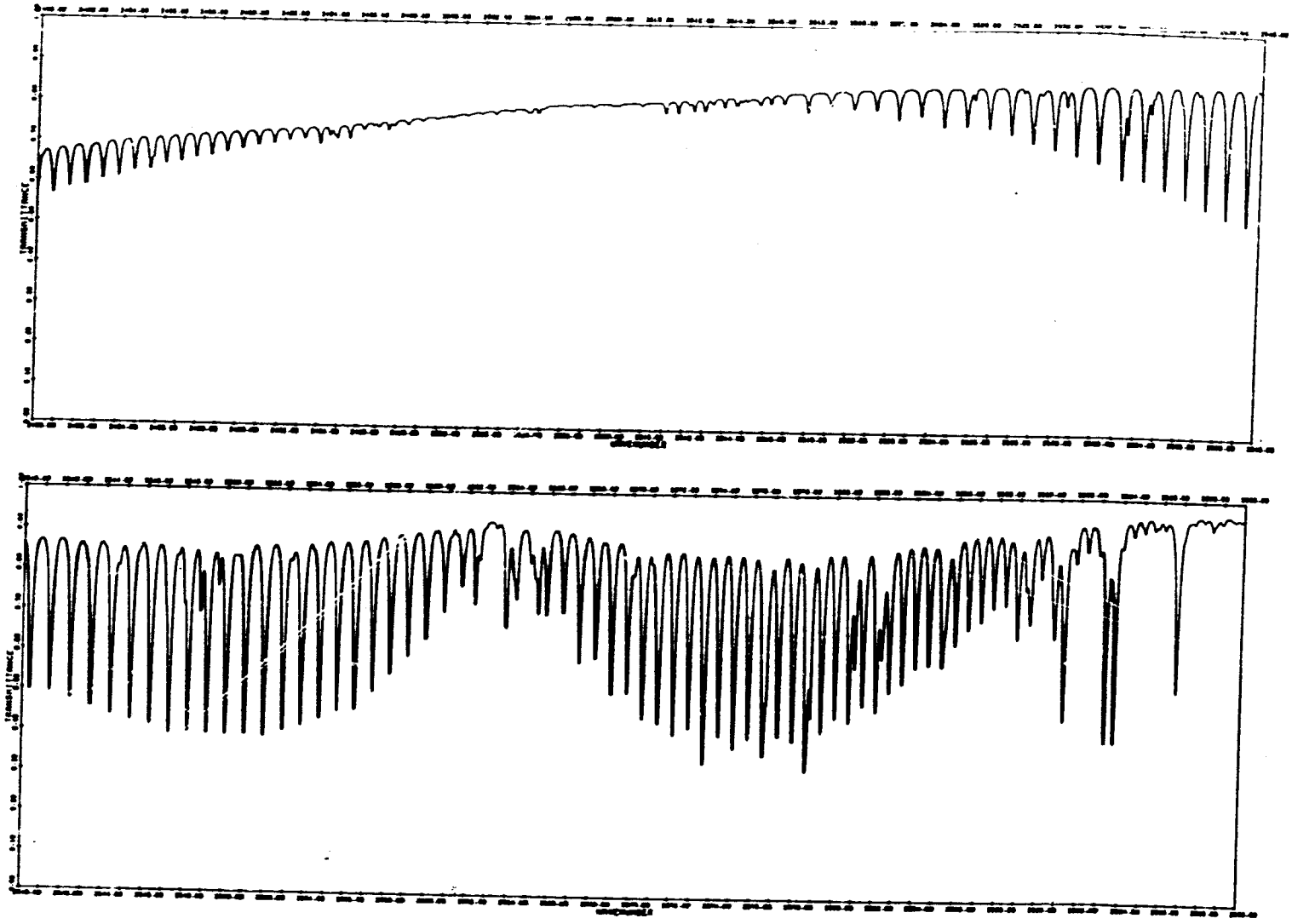

Figure 2c. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

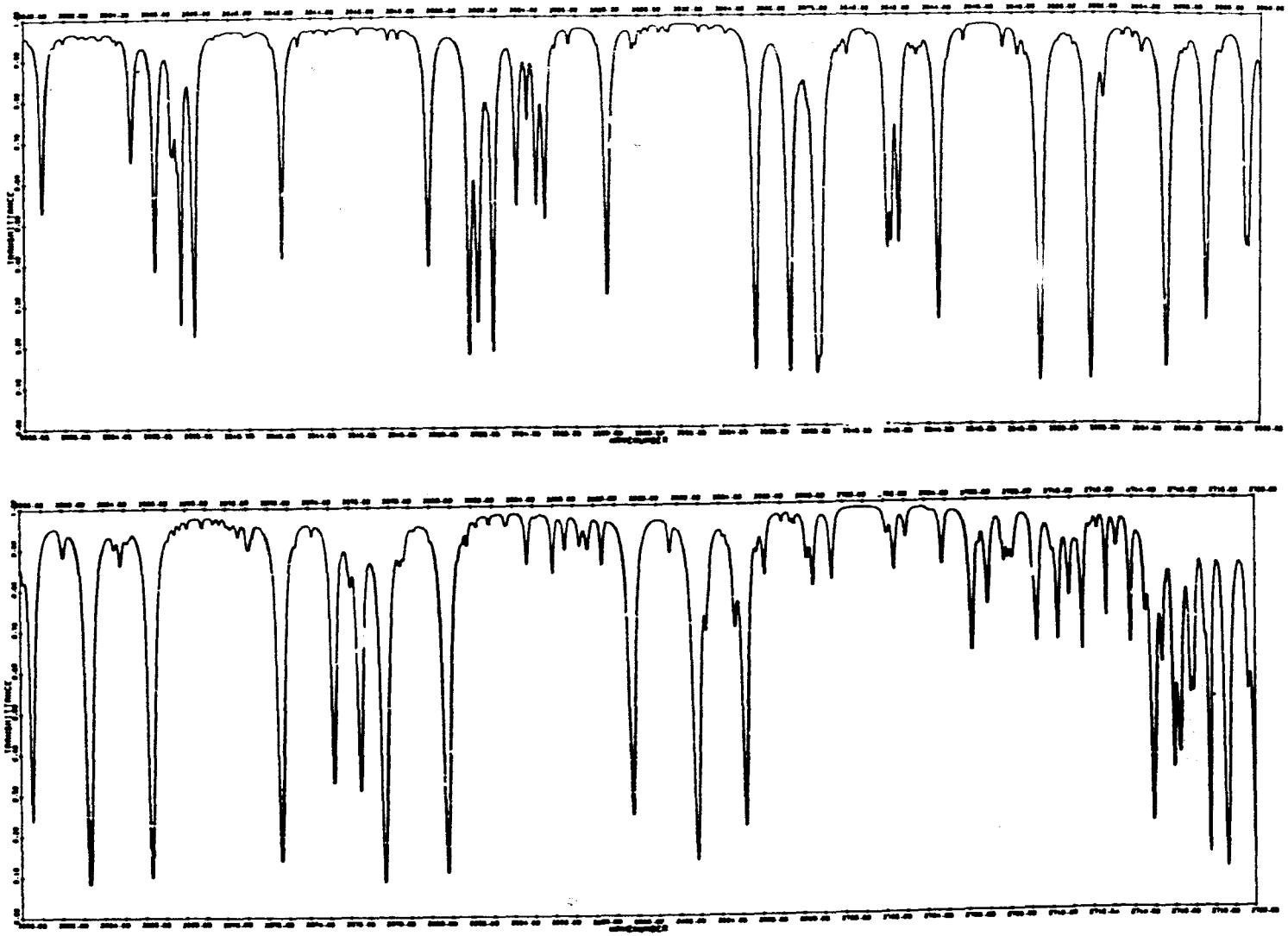

Figure 2d. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

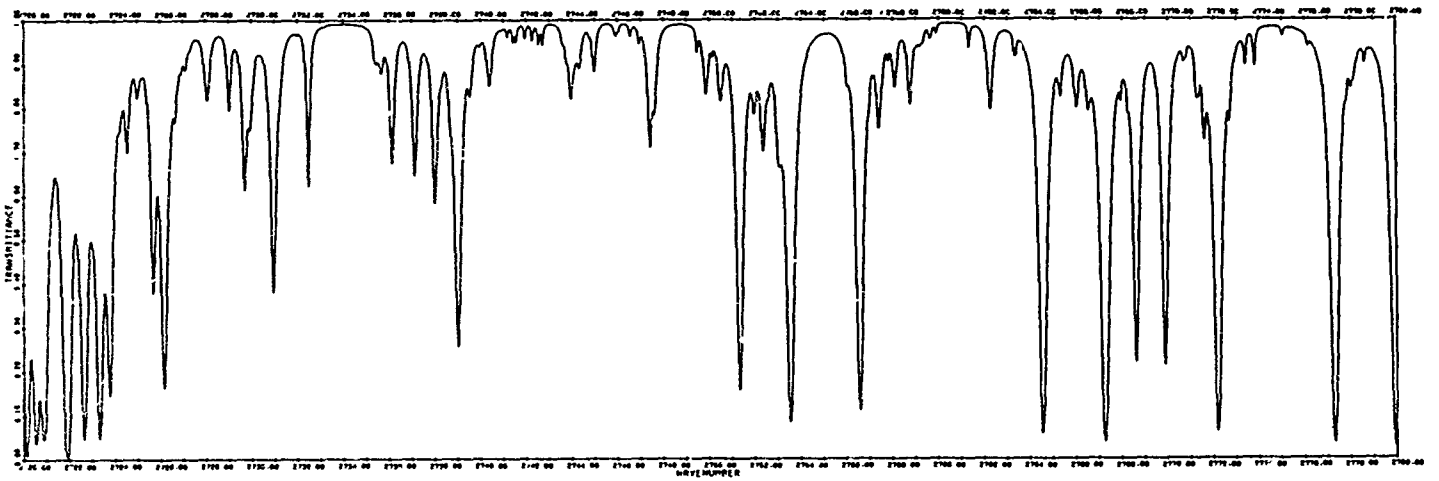

Figure 2e. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

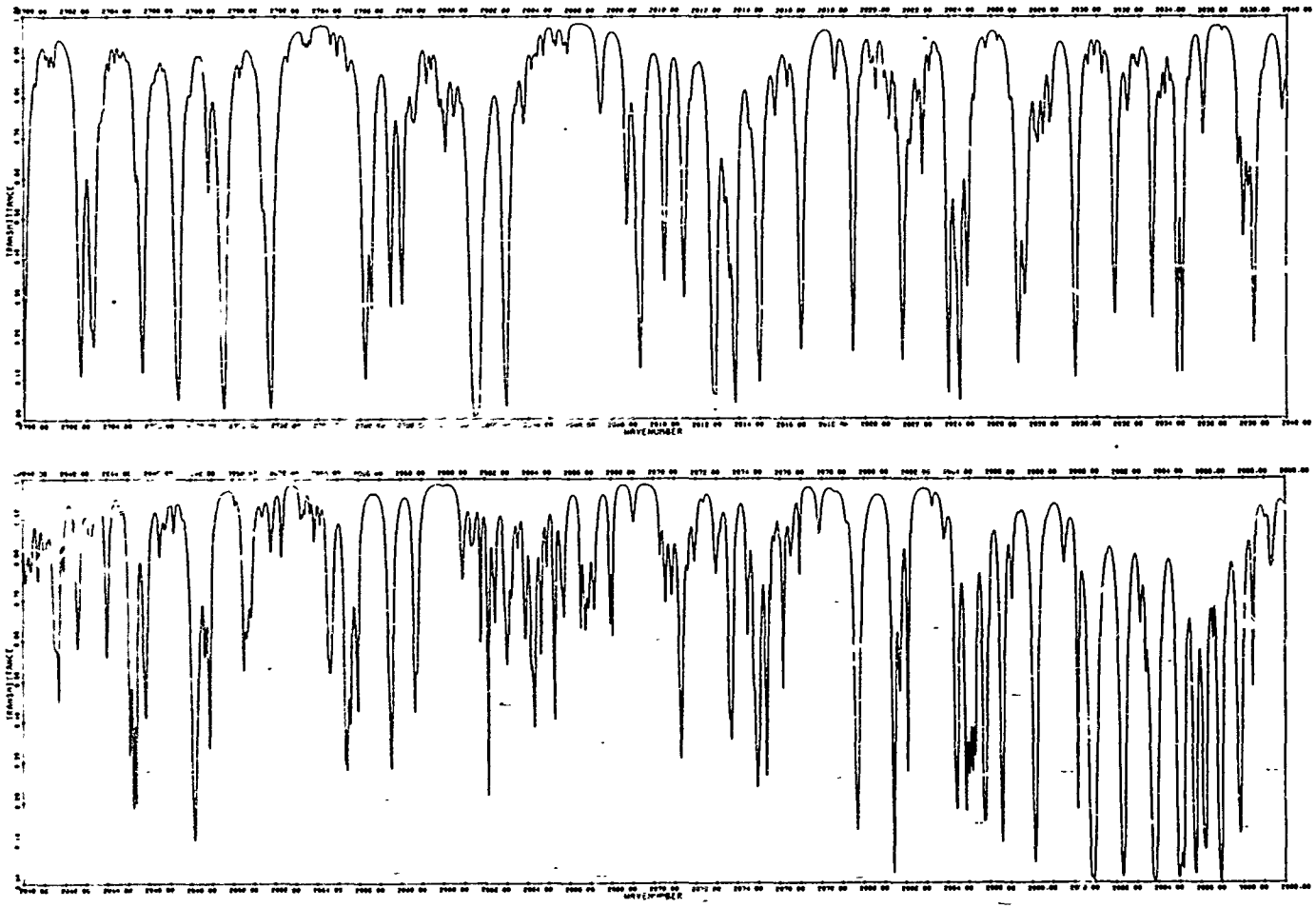

Figure 2f. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

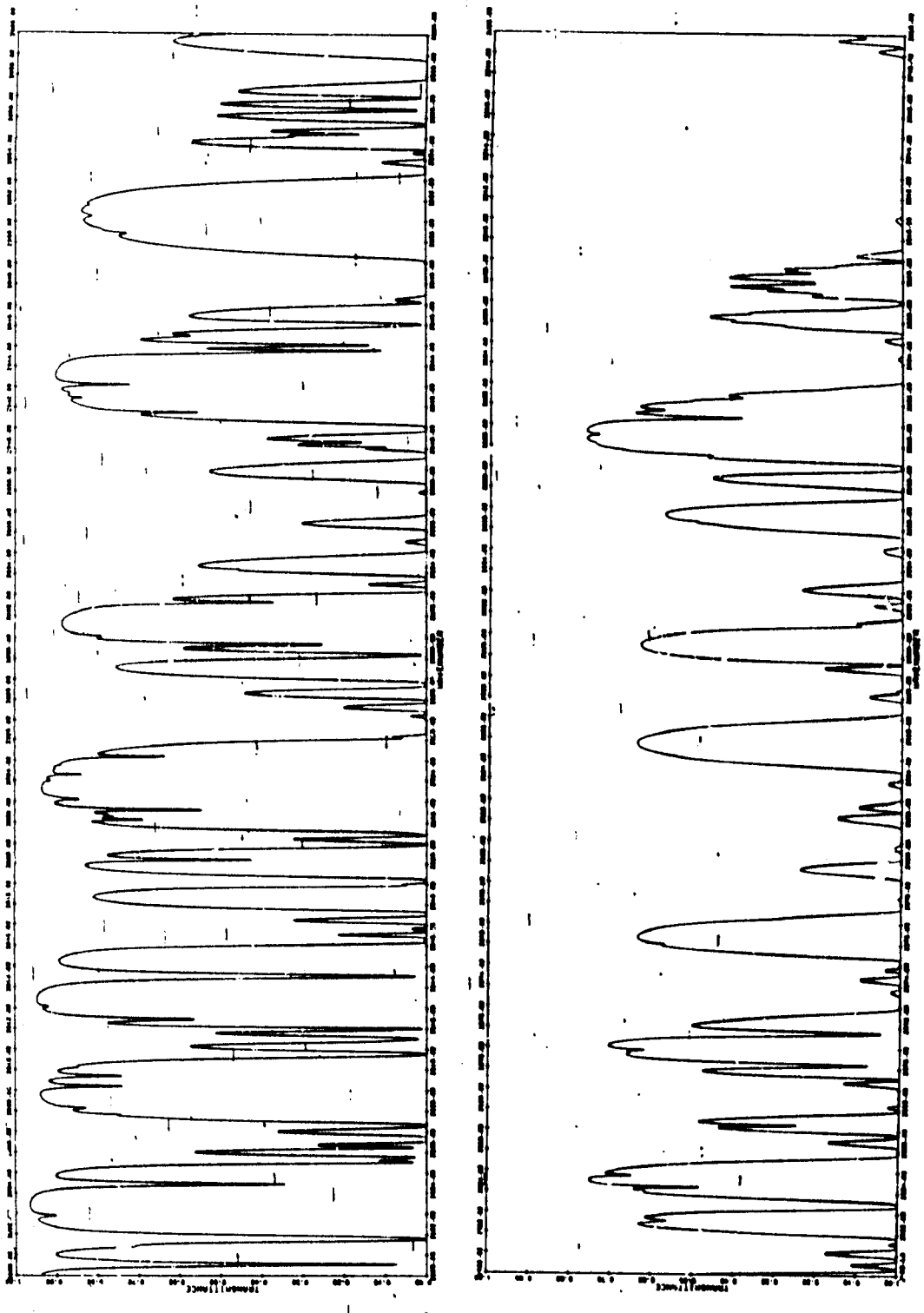

Figure 2g. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

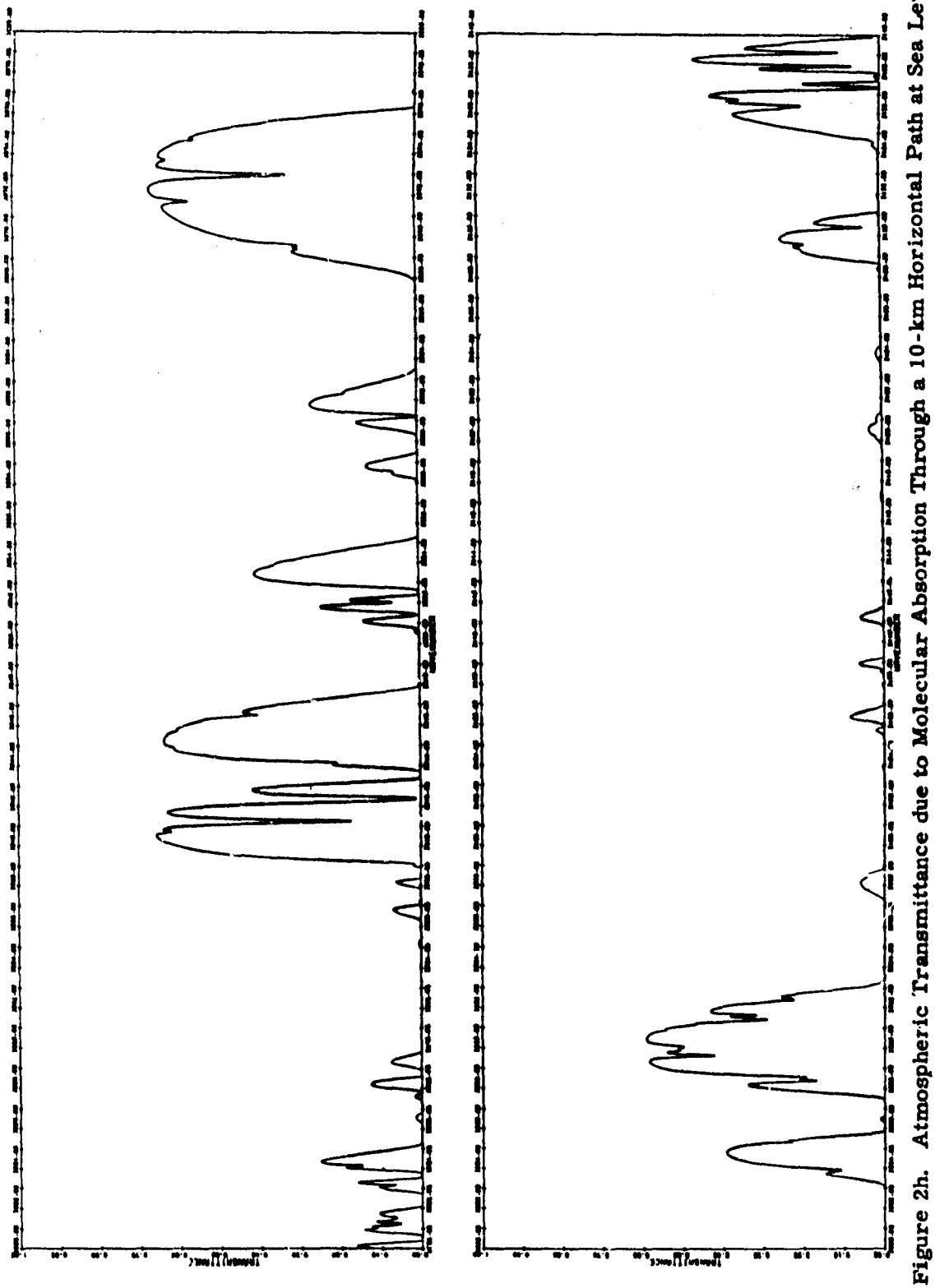

Figure 2h. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

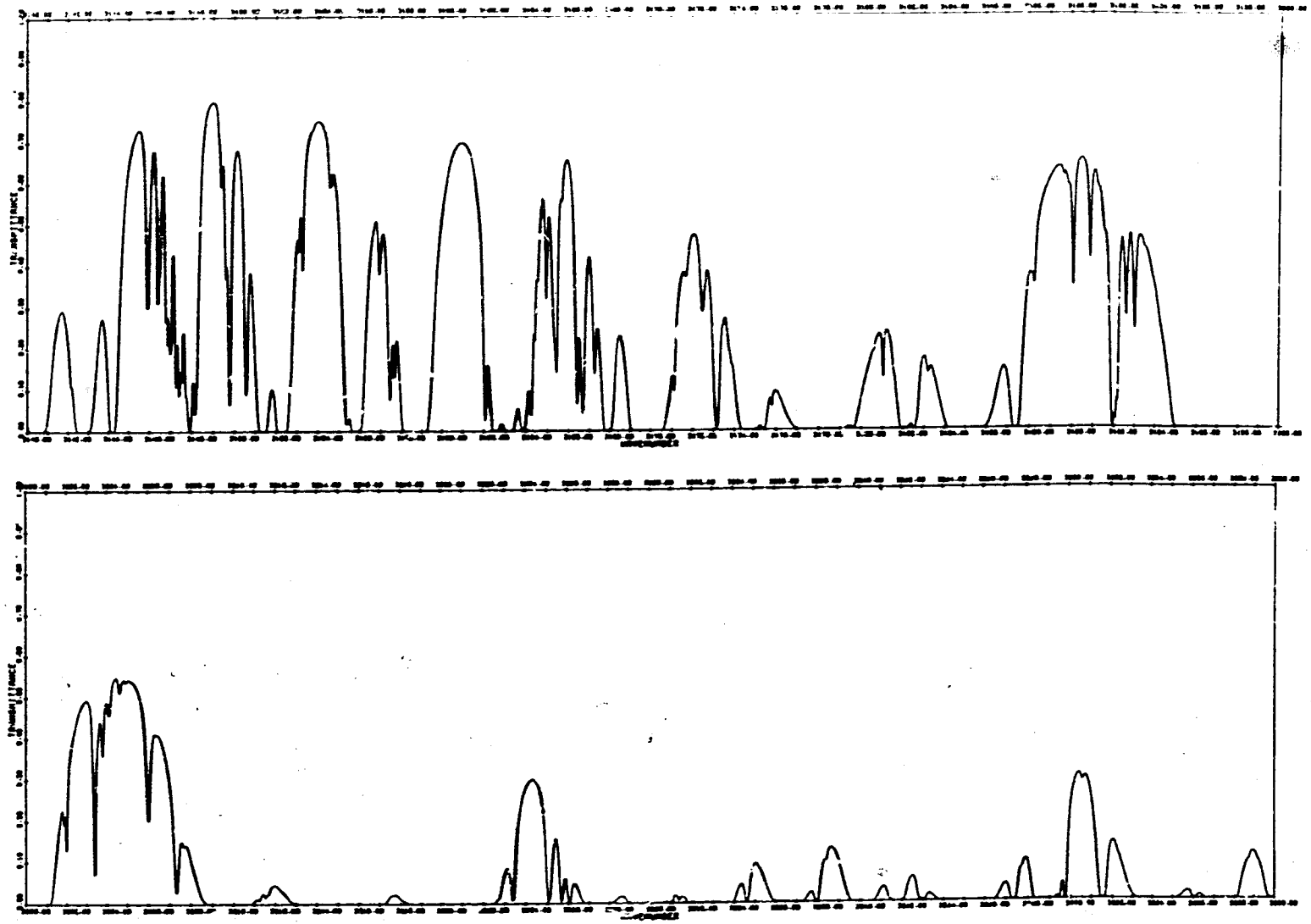

Figure 2i. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

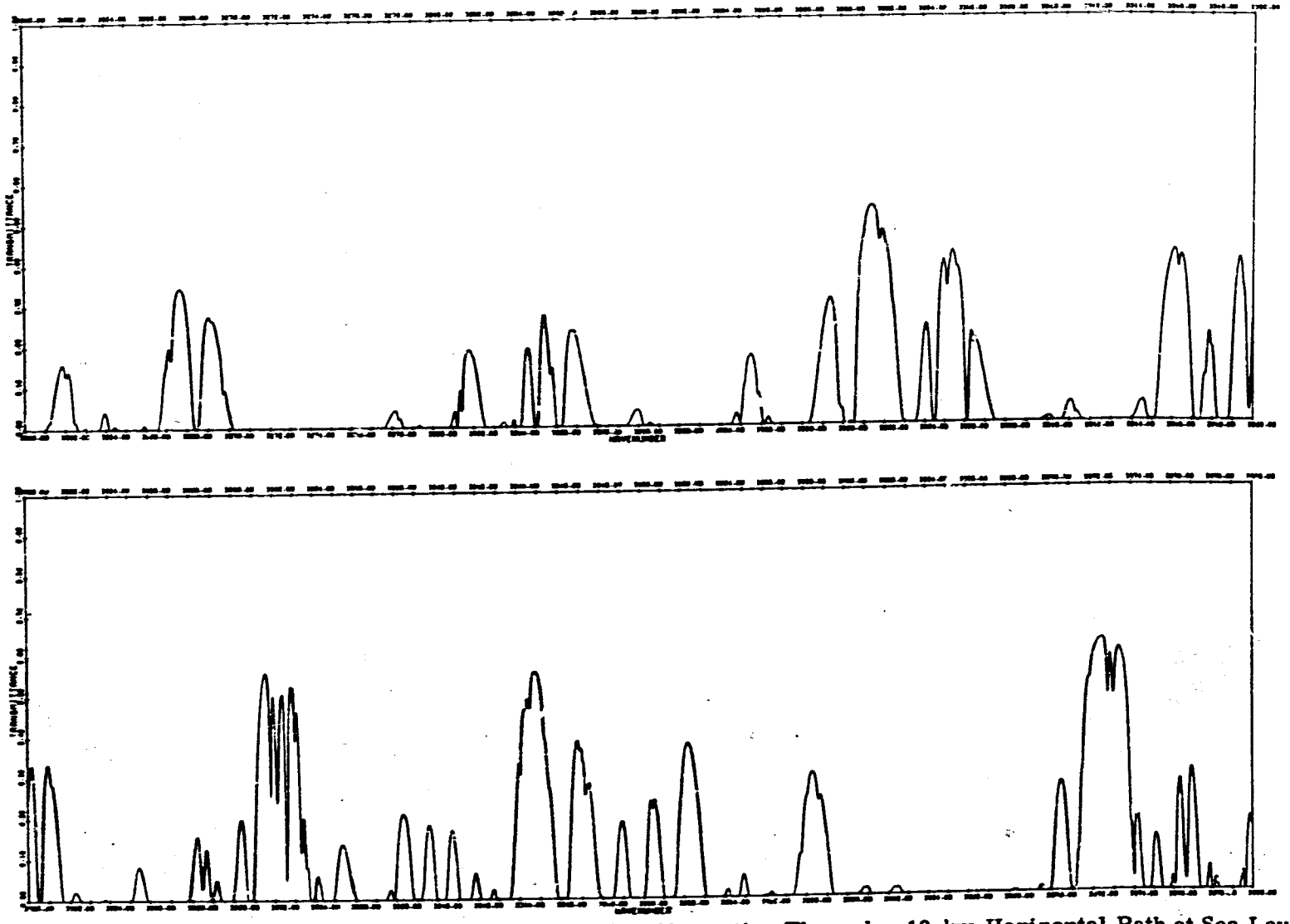

Figure 2j. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

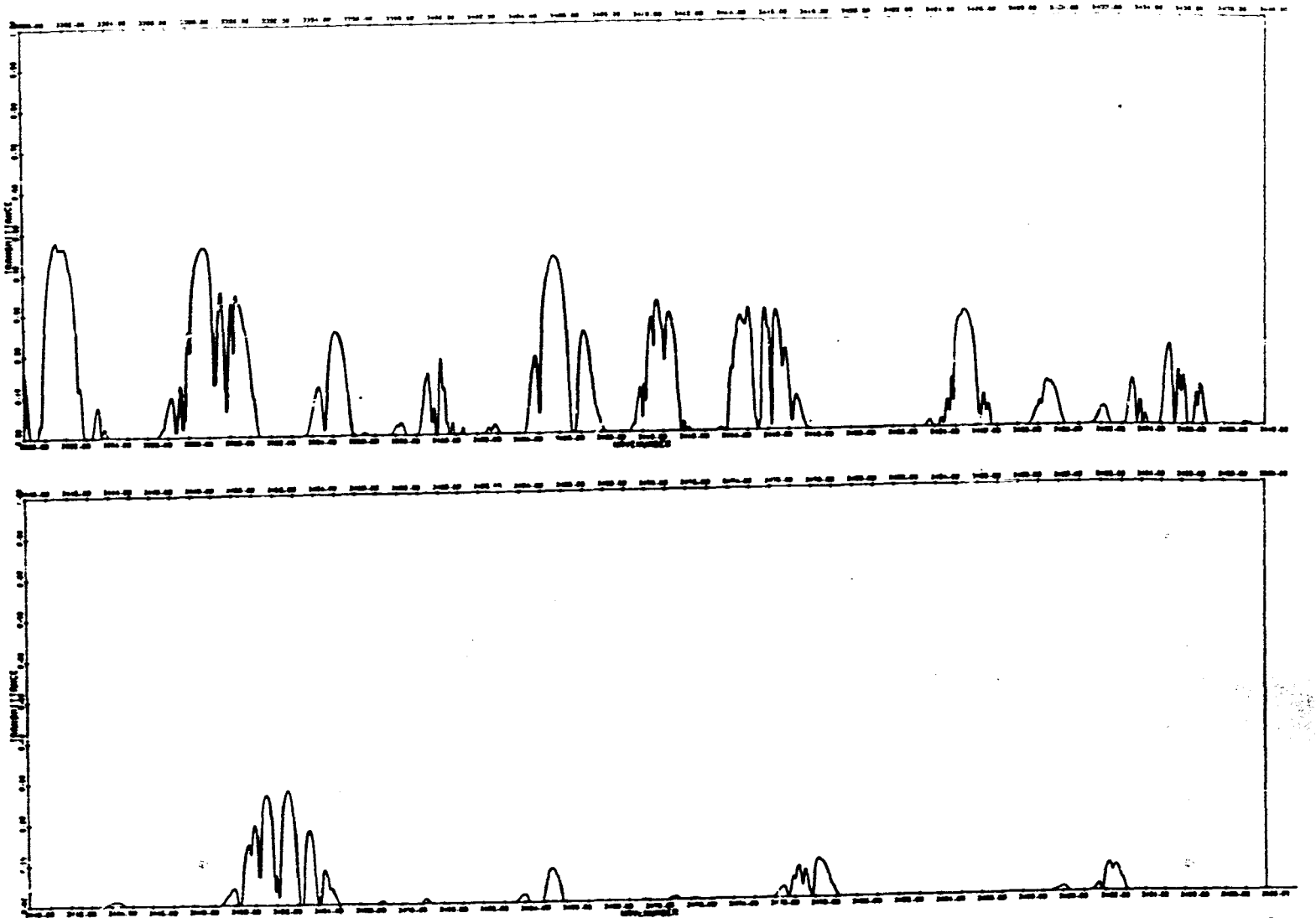

Figure 2k. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at Sea Level

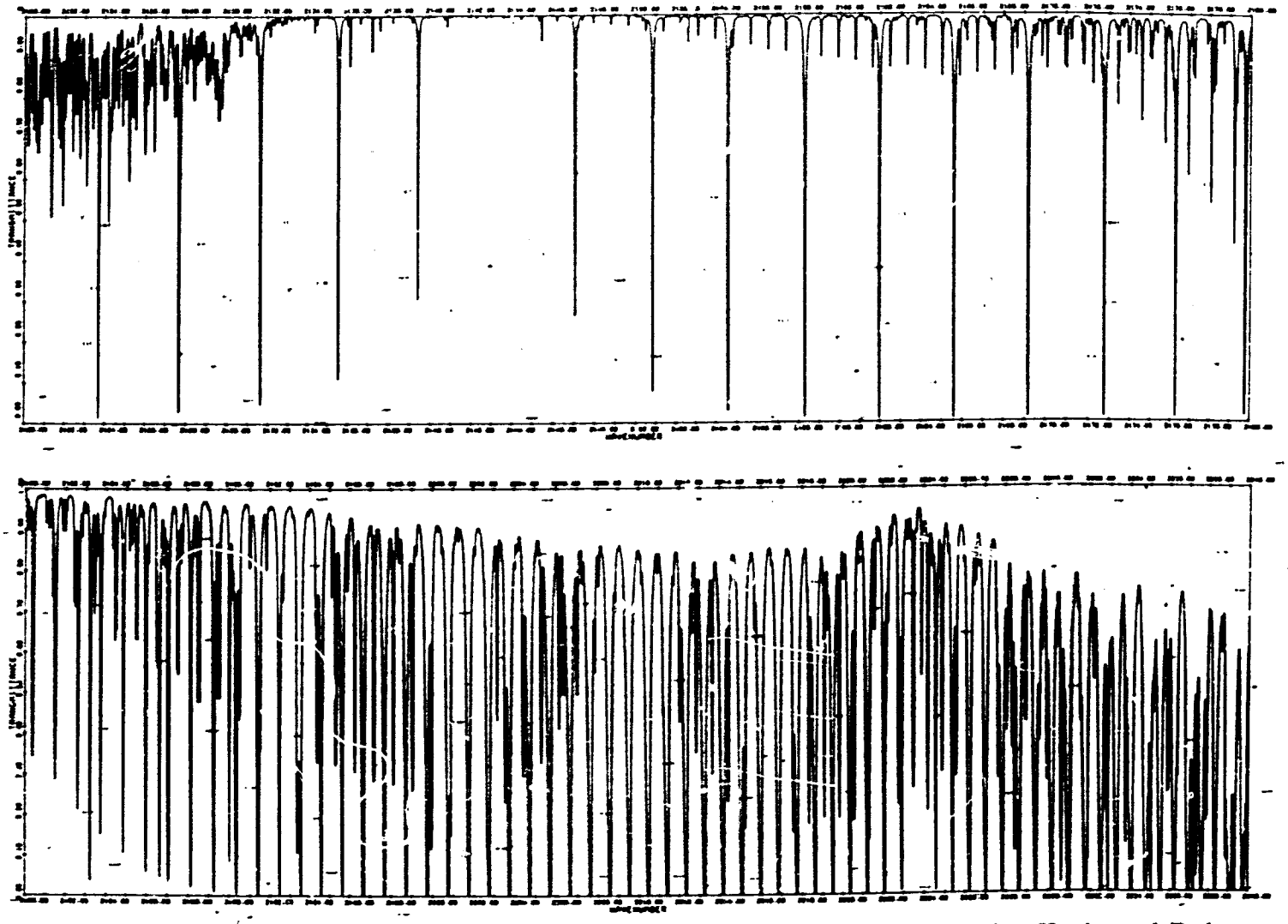

Figure 3a. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

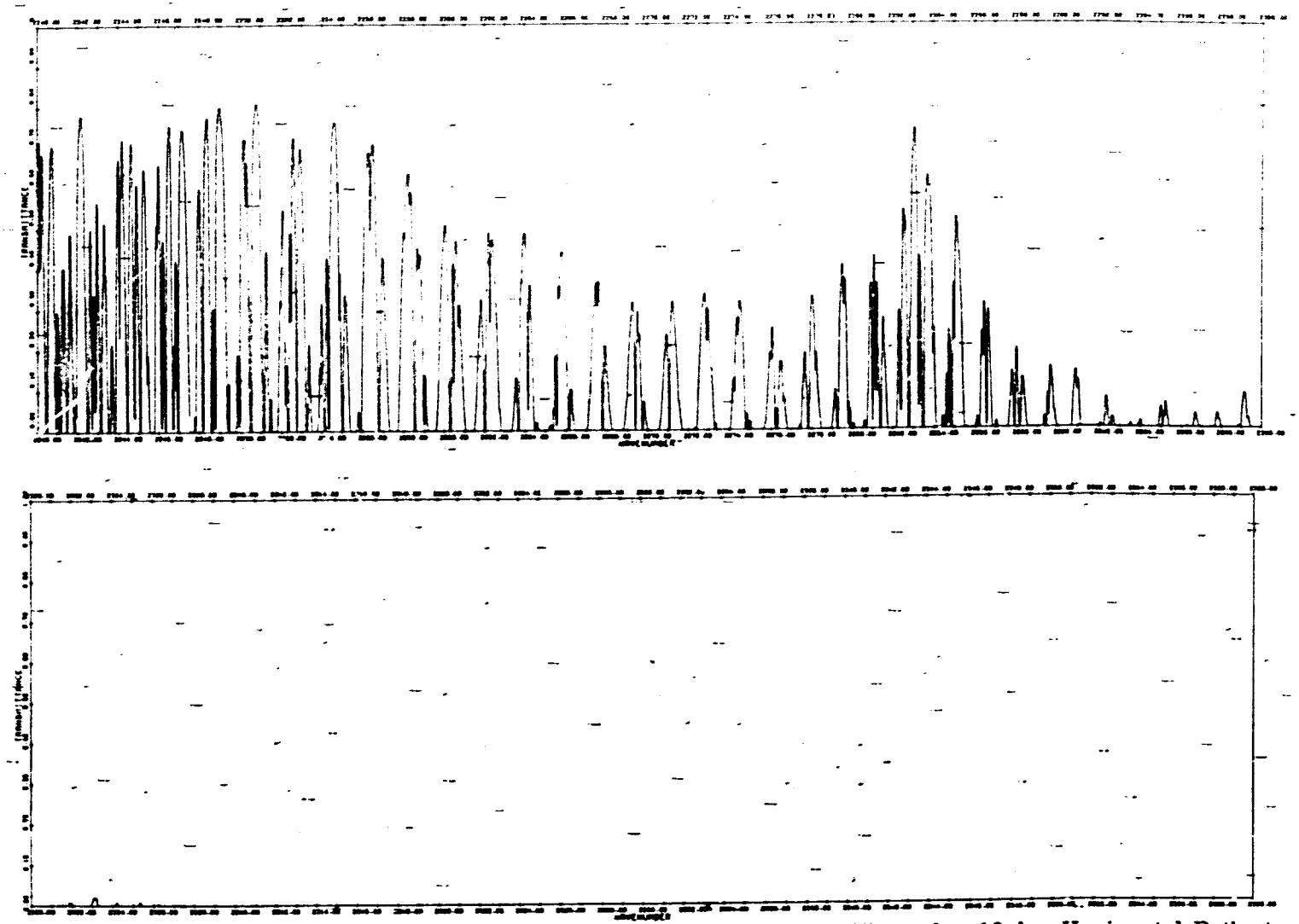

Figure 3b. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

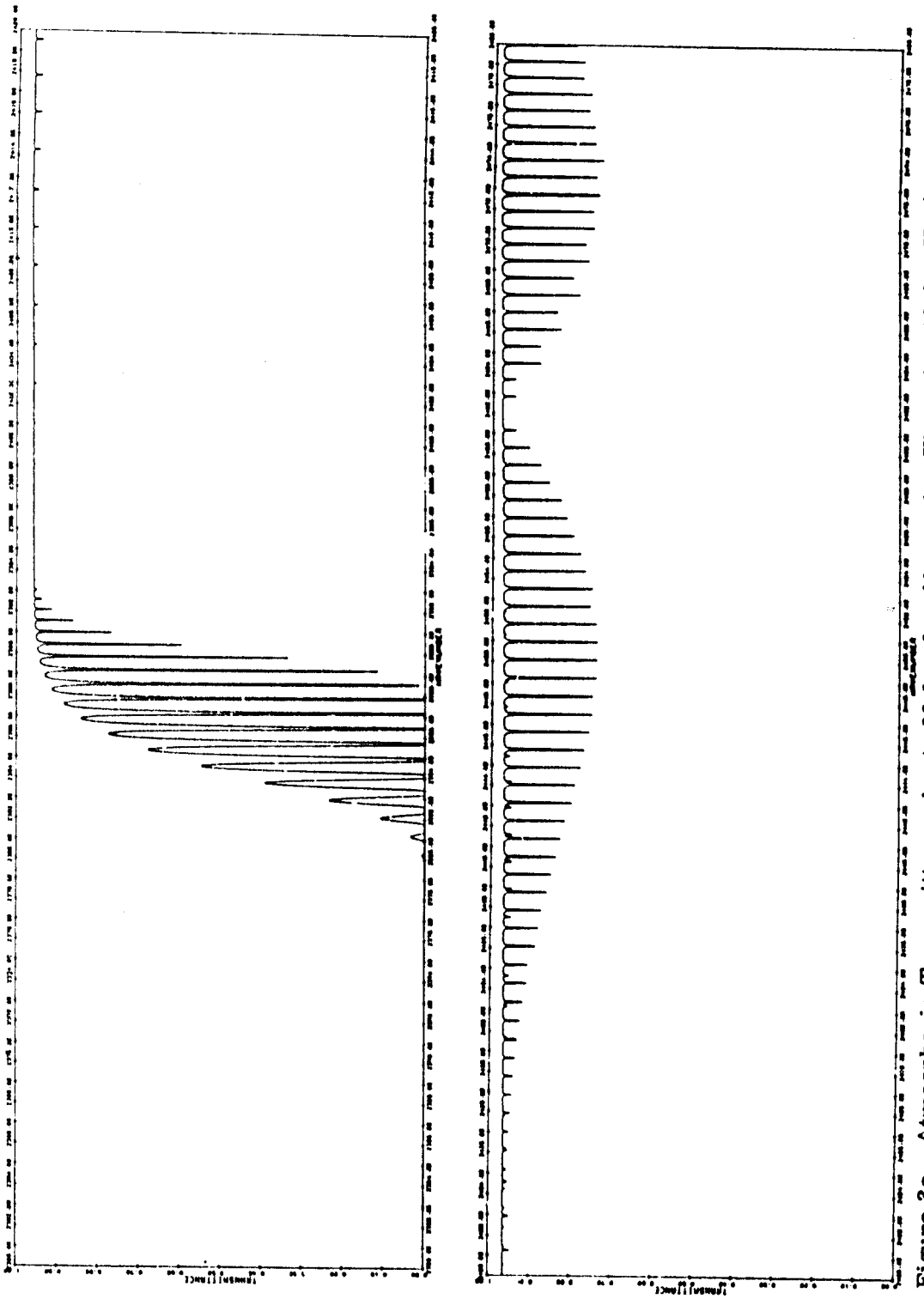

Figure 3c. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

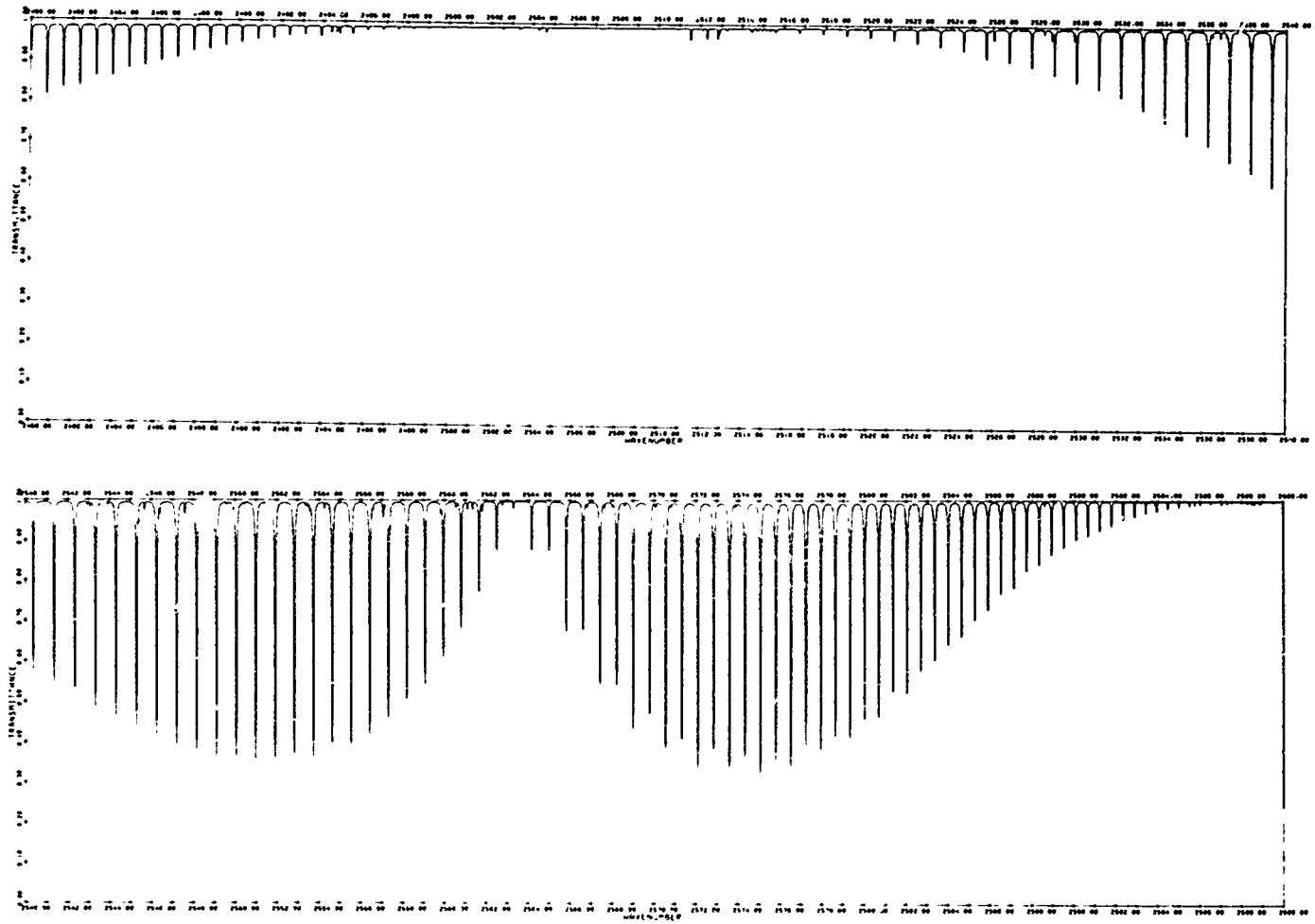

Figure 3d. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

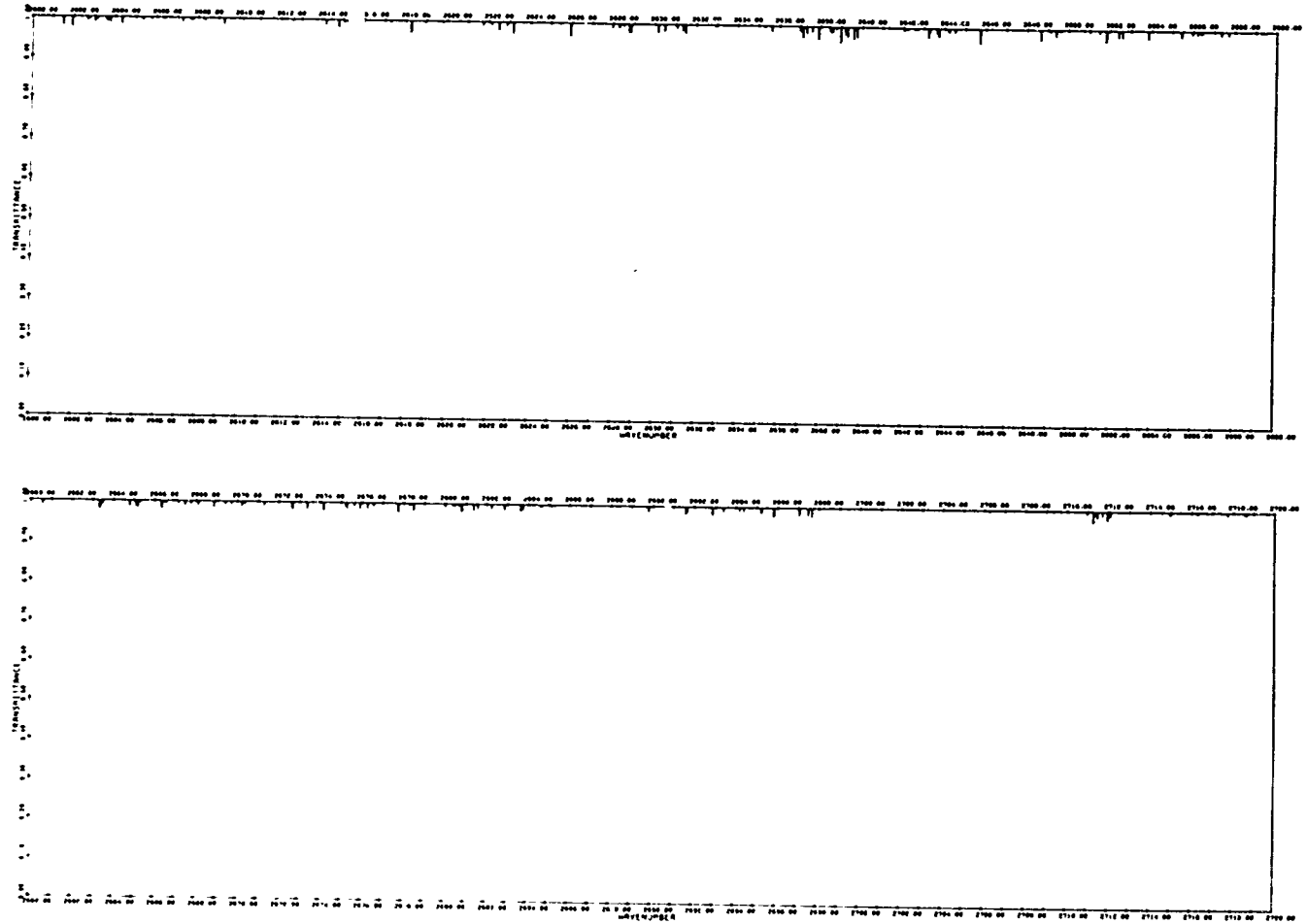

Figure 3e. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

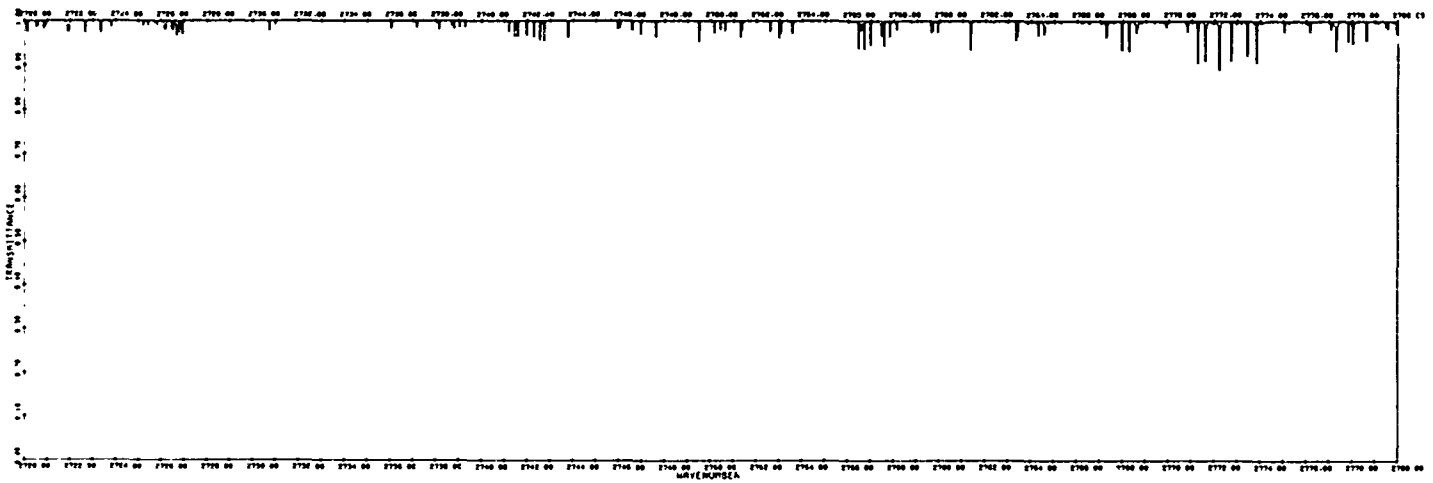

Figure 3f. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

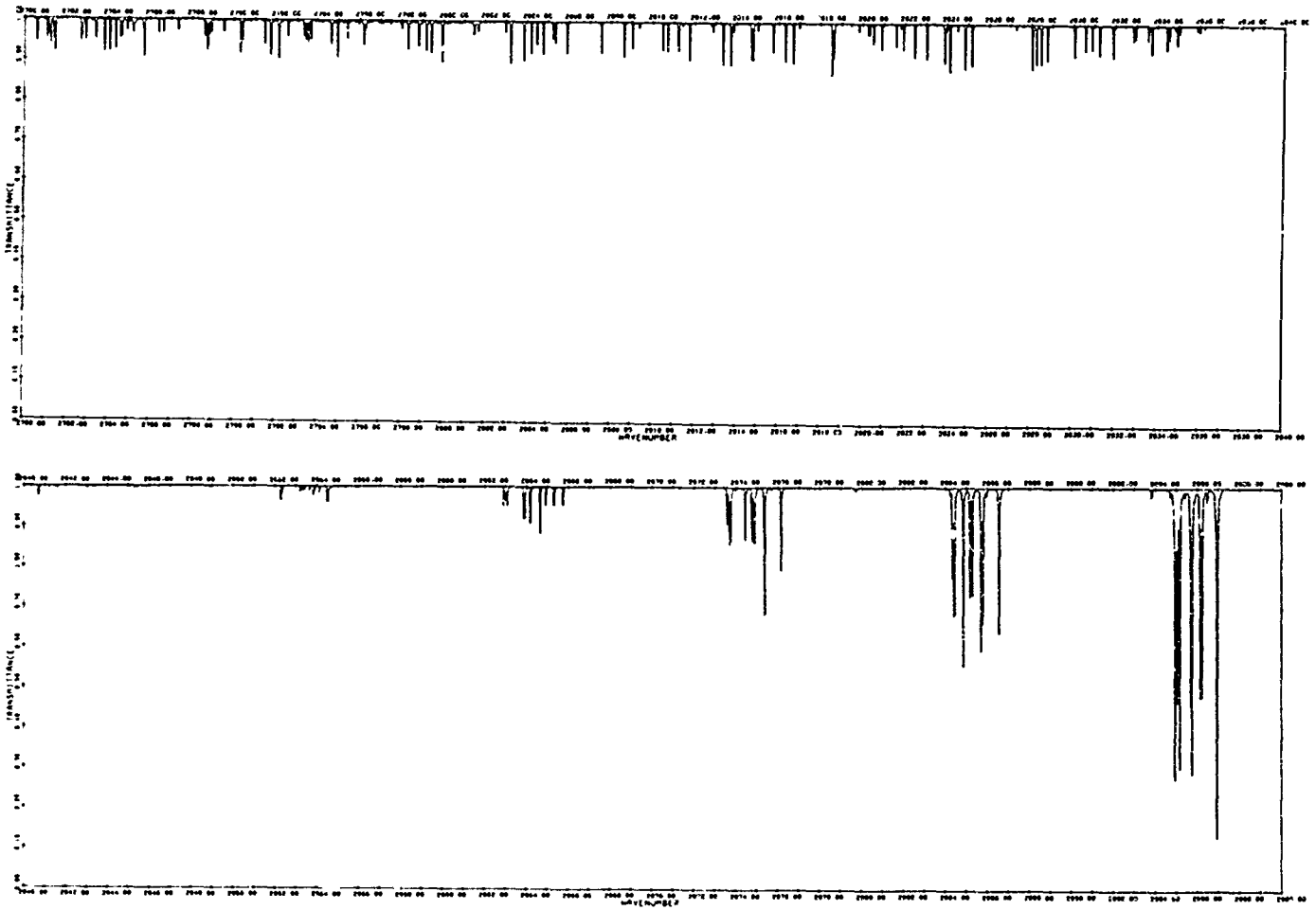

Figure 3g. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

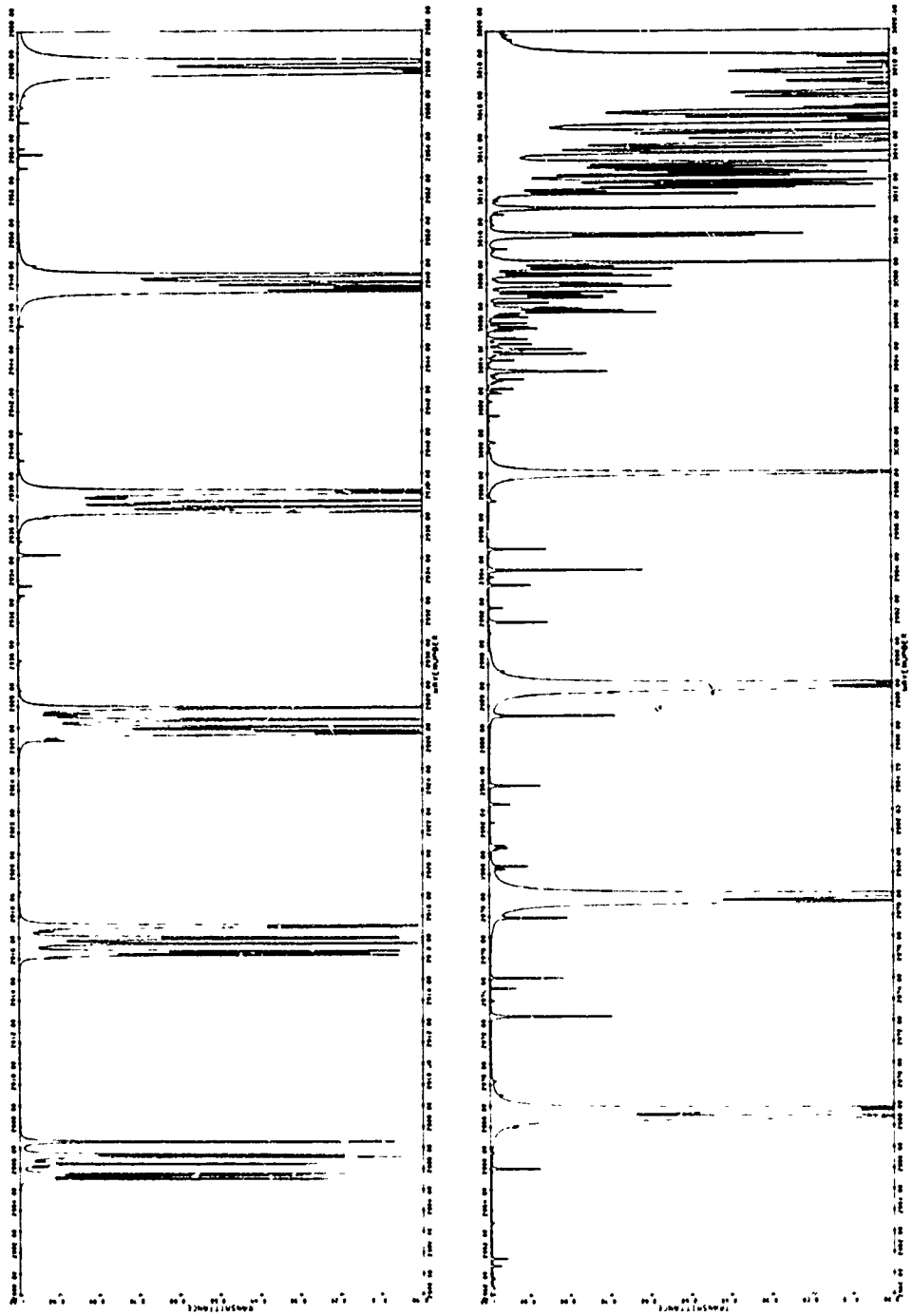

Figure 3h. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

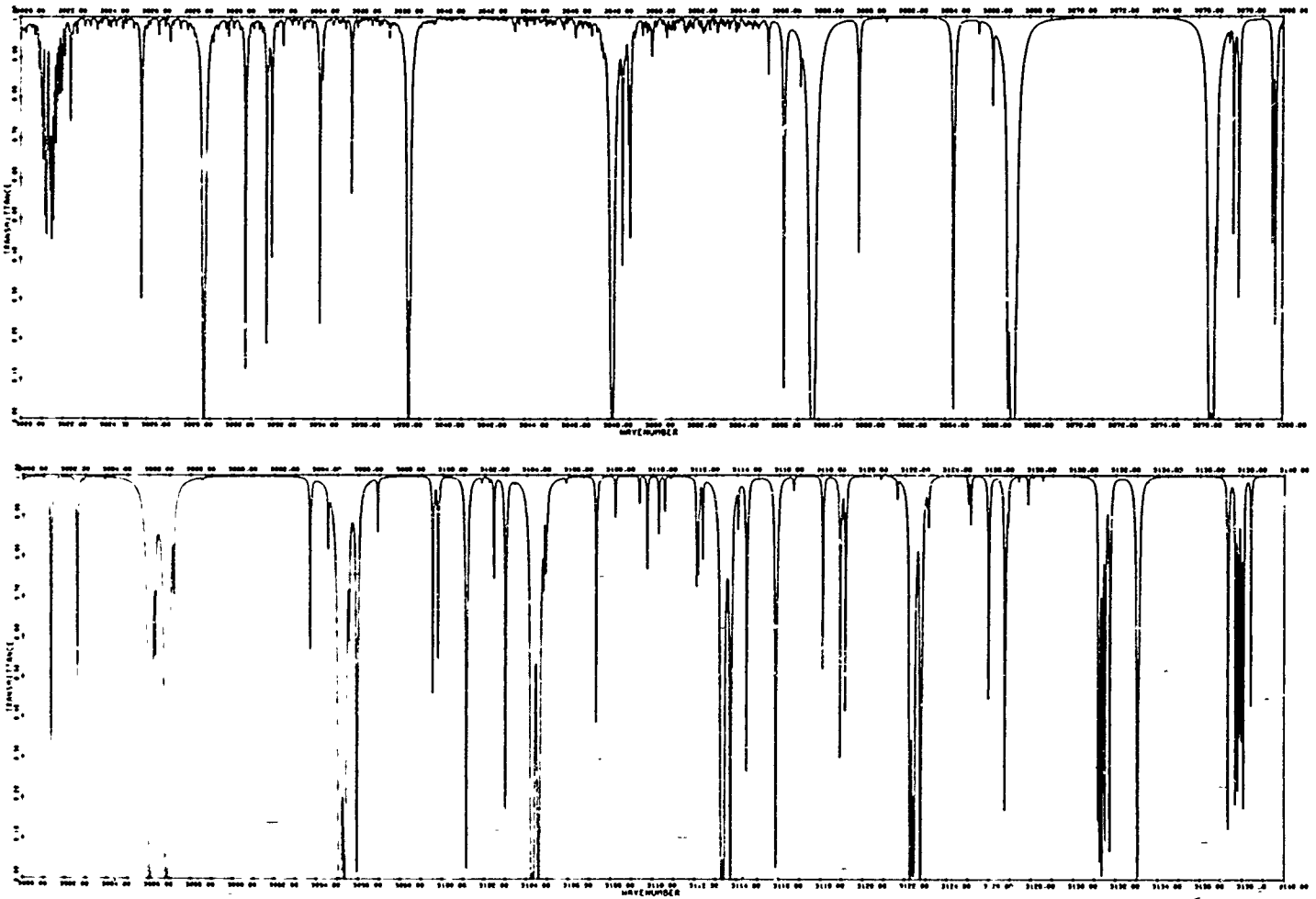

Figure 3i. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

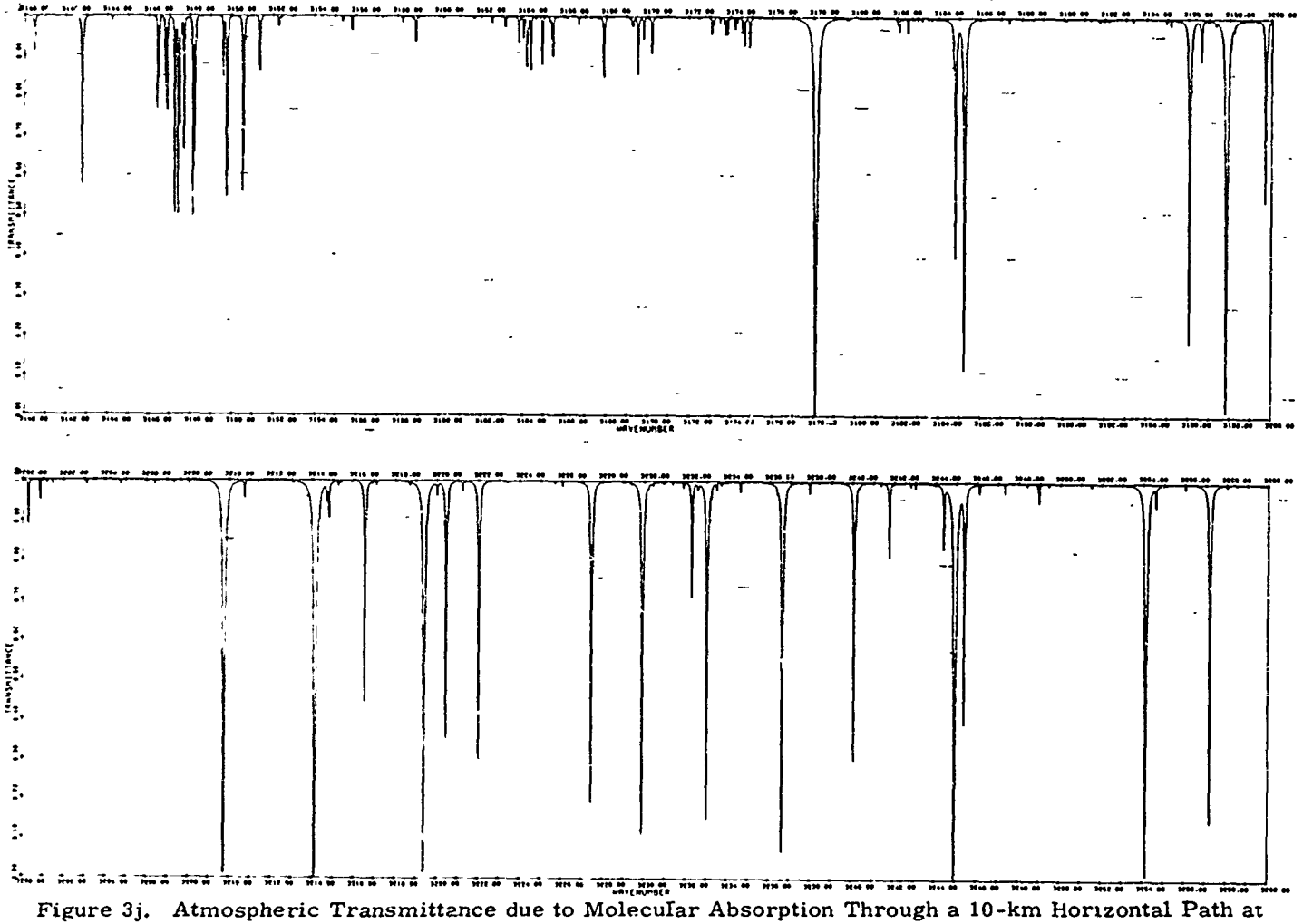

Figure 3j. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

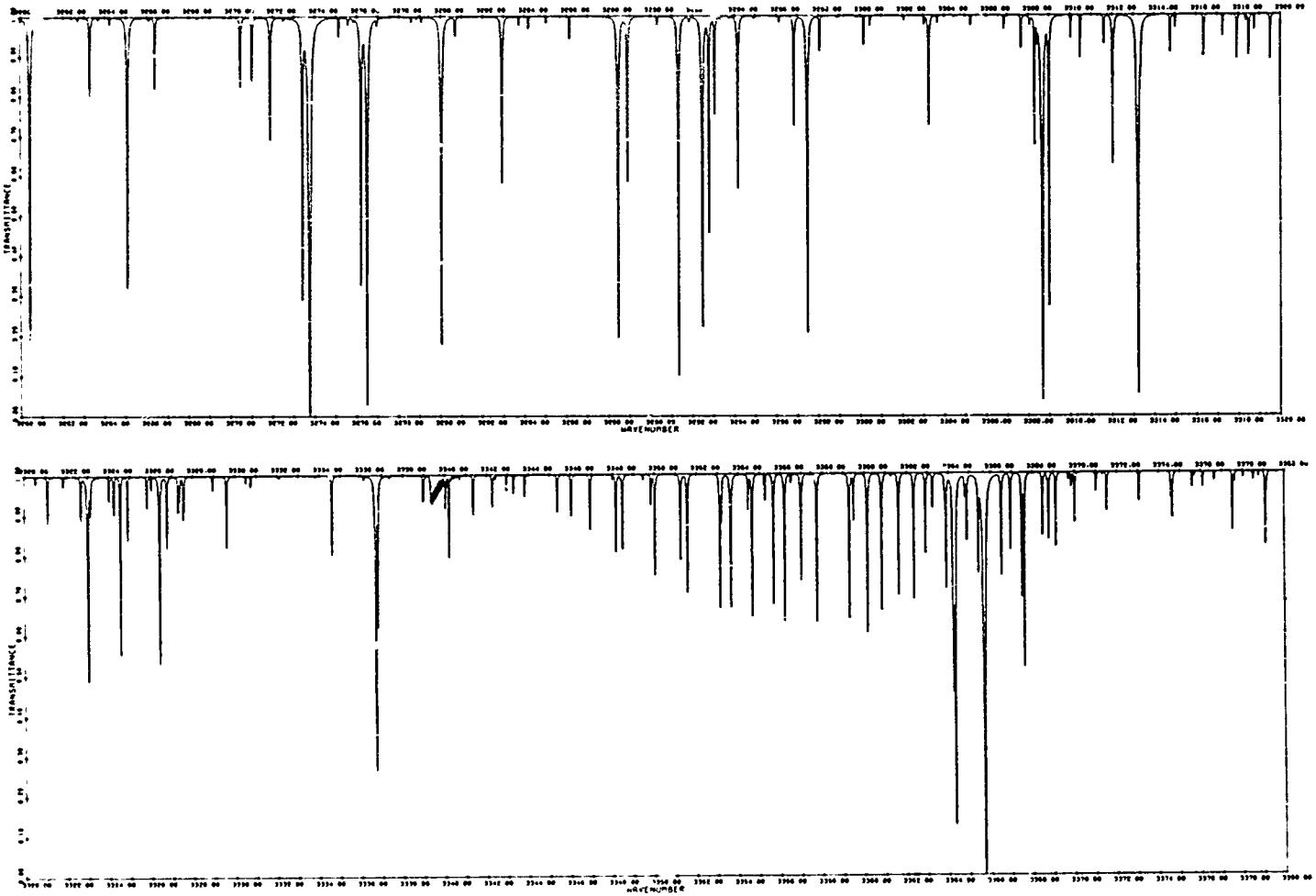

Figure 3k. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

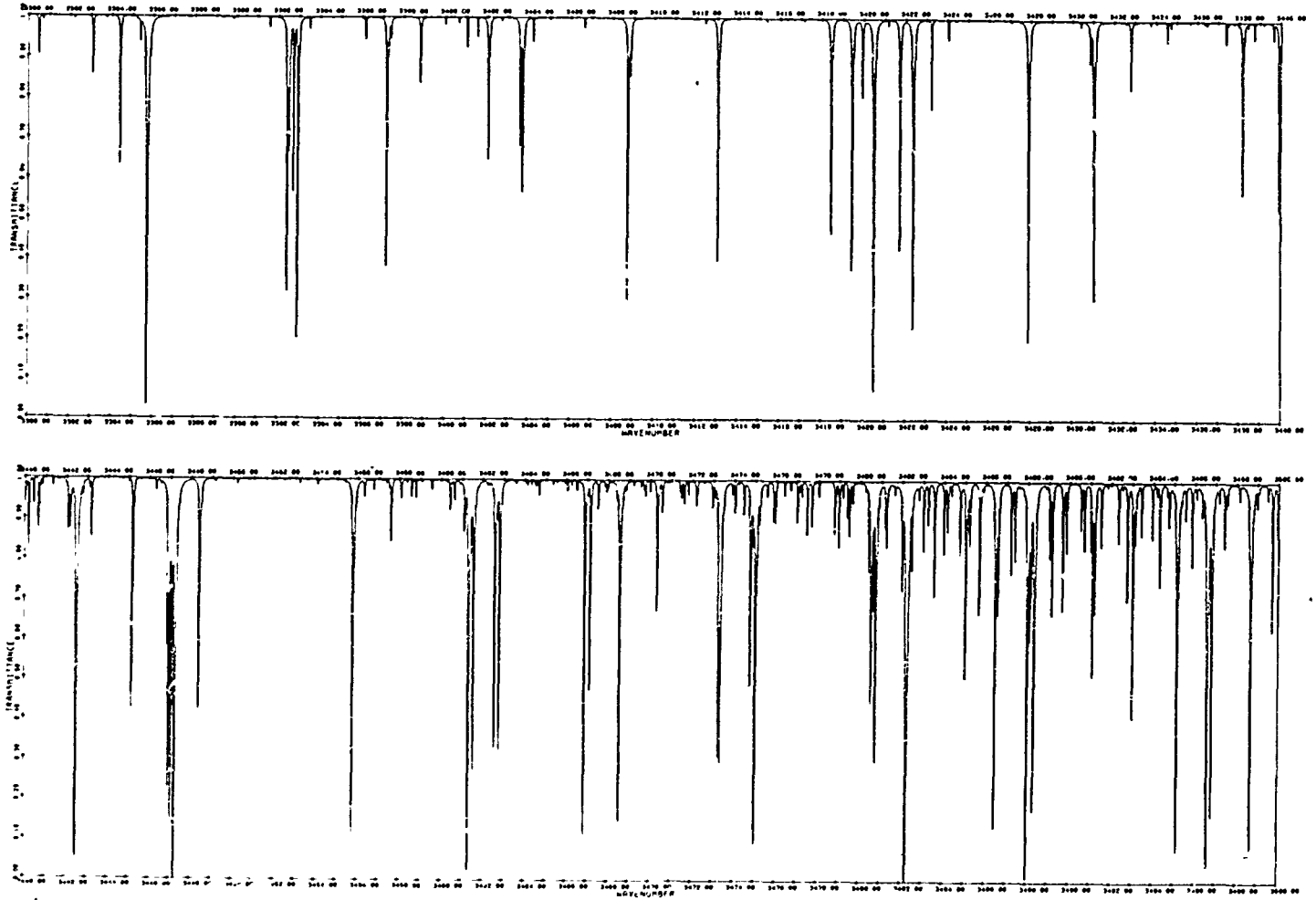

Figure 21. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

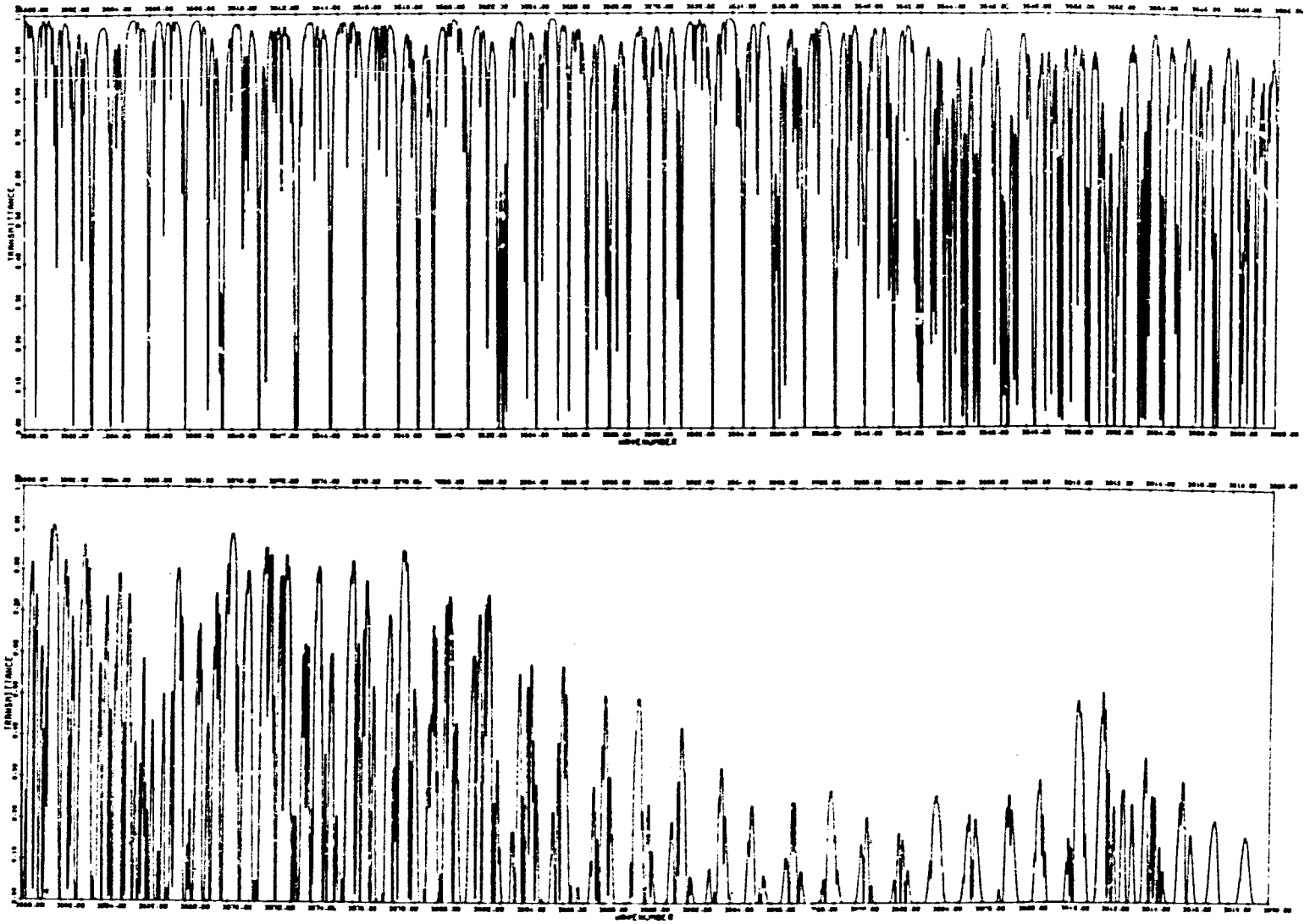

Figure 3m. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

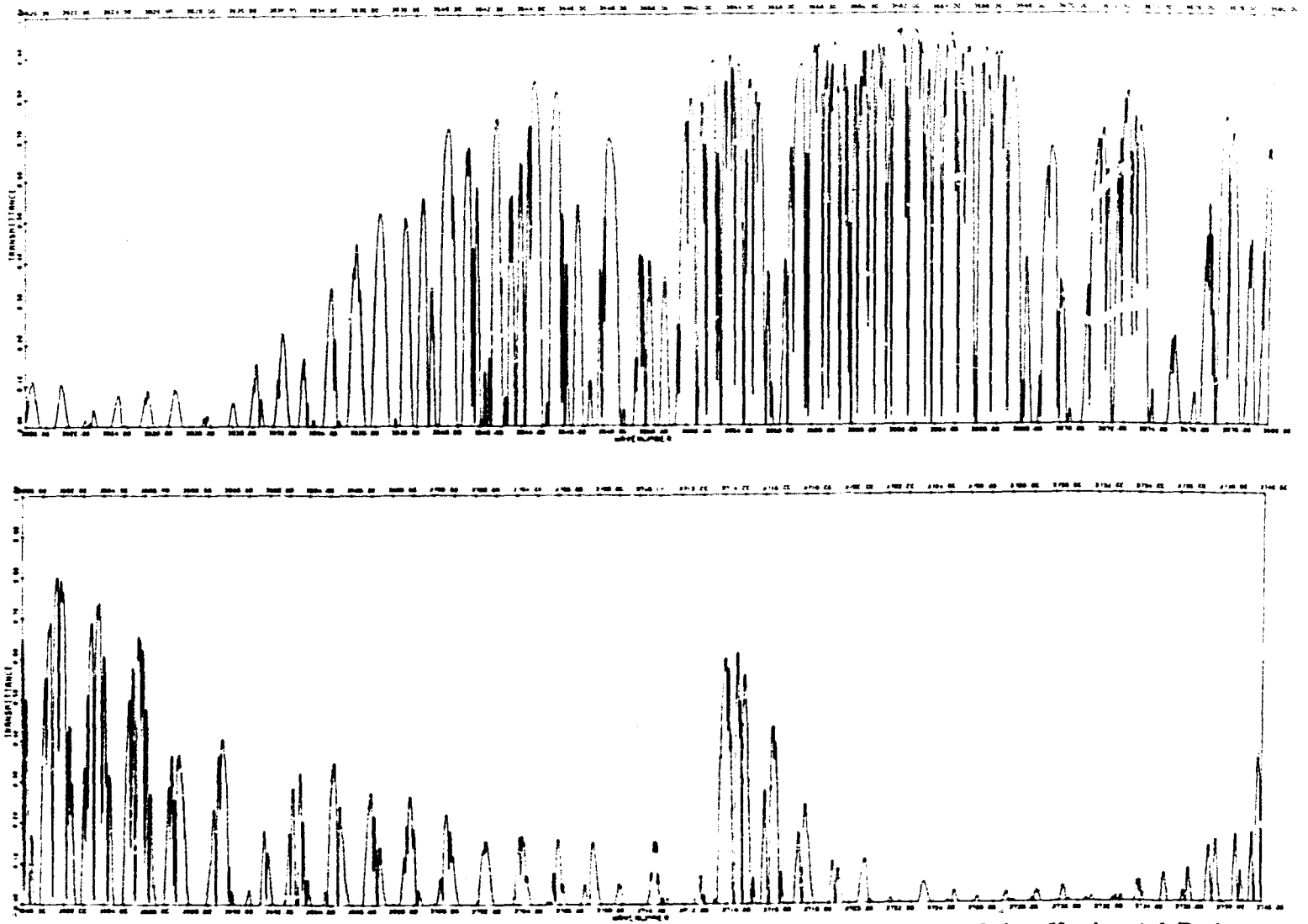

Figure 3n. Atmospheric Transmittance due to Molecular Absorption Through a 10-km Horizontal Path at an Elevation of 12 km

Acknowledgments

We wish to acknowledge the time and effort provided by James Chetwynd in working with the computer programs to generate the results contained in this report in a timely manner. Without such help this report would have been delayed a considerable amount of time.

References

Basov, N. G., Galochkin, V. T., Igoshin, V. I., Kulakov, L. V., Martin, E. P., Nikitin, A. I., and Oraevsky, A. N. (1971) Appl. Optics, 10 (No. 8): 1814-1820.

Calfee, R. F., and Benedict, W. S. (1966) Carbon Dioxide Spectral Line Positions and Intensities Calculated for the 2.05 and 2.7 Micron Regions, NBS Technical Note 332, 15 Mar 1966.

Deirmendjian, D. (1963) Scattering and Polarization Properties of Polydispersed Suspensions with Partial Absorption, Proc. of the Interdisciplinary Conf. on Electromagnetic Scattering, Potsdam, NY, Milton Kerker, Ed., Pergamon Press.

Deutsch, T. F. (1967) Ap. Phys. Letters 10 (No. 8): 234-236.

Elterman, L. (1968) UV, Visible, and IR Attenuation for Altitudes up to 50 km, AFCRL, Environmental Res. Paper No. 285, AFCRL-68-0153.

Elterman, L. (1970) Vertical-Attenuation Model with Eight Surface Meteorological Ranges 2 to 13 Kilometers, AFCRL, Environmental Res. Paper No. 318, AFCRL-70-0200.

Gates, D. M., Calfee, R. F., Hansen, D. W., and Benedict, W. S. (1964) Line Parameters and Computer Spectra for Water Vapor Bands at 2.7 μm, NBS Monograph 71, 3 Aug 1964.

References

Gray, L. D., and McClatchey, R. A. (1964) Appl. Optics, 4 (No. 12): 1624-1631.

Gryvnak, D. A., Patty, R. N., Burch, D. E., and Miller, E. E. (1966) Absorption by CO_2 between 1800 and 2850 cm^{-1}, Pub. No. U-3857, under contract NOnr 3560(00).

Kyle, T. G. (1968) Line Parameters of the Infrared Methane Bands, AFCRL-68-0521.

McCaa, D. J., and Shaw, J. H. (1967) The Infrared Absorption Bands of Ozone, AFCRL-67-0237.

McClatchey, R. A., Fenn, R. W., Selby, J. E. A., Garing, J. S., and Volz, F. E. (1970) Optical Properties of the Atmosphere, Environmental Res. Paper No. 331, AFCRL-70-0527.

McClatchey, R. A. (1971) Atmospheric Attenuation of CO Laser Radiation, Environmental Res. Paper No. 359, AFCRL-71-0370,

Valley, S. L., Ed. (1965) Handbook of Geophysics and Space Environments, AFCRL.

Volz, F. E. (1957) Ann. Meteorol. 8:34.

Young, C. (1965) J. Q. S. R. T., 5:549-552.

Appendix A

Attenuation Coefficients (km^{-1}) for a Selected List of HF Laser Frequencies for Five Geographical Model Atmospheres and Two Aerosol Models

WAVELENGTH = 3.522876 MICROMETERS

FREQUENCY = 2838.590 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.637E-01	.00	2.691E-01	.00	6.536E-02	.00	1.732E-01	.00	2.179E-02	.00	1.507E-02	1.565E-02	7.343E-02	7.624E-02		
0 - 1	2.998E-01	.00	2.167E-01	.00	5.453E-02	.00	1.389E-01	.00	2.154E-02	.00	1.029E-02	1.068E-02	4.630E-02	4.807E-02		
1 - 2	1.999E-01	.00	1.346E-01	.00	3.737E-02	.00	8.984E-02	.00	1.837E-02	.00	4.488E-03	4.660E-03	1.489E-02	1.546E-02		
2 - 3	1.156E-01	.00	7.637E-02	.00	2.465E-02	.00	5.721E-02	.00	1.314E-02	.00	1.915E-03	1.988E-03	5.174E-03	5.371E-03		
3 - 4	5.312E-02	.00	4.065E-02	.00	1.411E-02	.00	3.418E-02	.00	8.190E-03	.00	8.894E-04	9.234E-04	2.260E-03	2.346E-03		
4 - 5	2.750E-02	.00	2.095E-02	.00	7.365E-03	.00	1.943E-02	.00	4.161E-03	.00	5.536E-04	5.749E-04	8.254E-04	8.570E-04		
5 - 6	1.595E-02	.00	1.093E-02	.00	3.837E-03	.00	1.014E-02	.00	1.869E-03	.00	4.045E-04	4.199E-04	4.045E-04	4.199E-04		
6 - 7	8.220E-03	.00	6.099E-03	.00	1.690E-03	.00	5.006E-03	.00	8.783E-04	.00	3.259E-04	3.383E-04	3.259E-04	3.383E-04		
7 - 8	4.058E-03	.00	3.268E-03	.00	6.245E-04	.00	2.253E-03	.00	2.899E-04	.00	3.188E-04	3.310E-04	3.188E-04	3.310E-04		
8 - 9	1.864E-03	.00	1.685E-03	.00	2.414E-04	.00	7.937E-04	.00	9.275E-05	.00	3.169E-04	3.290E-04	3.169E-04	3.290E-04		
9 - 10	7.616E-04	.00	8.376E-04	.00	9.967E-05	.00	2.392E-04	.00	5.824E-05	.00	3.064E-04	3.181E-04	3.064E-04	3.181E-04		
10 - 11	2.603E-04	.00	3.301E-04	.00	5.637E-05	.00	9.696E-05	.00	3.431E-05	.00	2.930E-04	3.042E-04	2.930E-04	3.042E-04		
11 - 12	7.932E-05	.00	9.165E-05	.00	4.411E-05	.00	5.786E-05	.00	2.060E-05	.00	2.906E-04	3.017E-04	2.906E-04	3.017E-04		
12 - 13	2.330E-05	.00	2.296E-05	.00	2.034E-05	.00	2.178E-05	.00	1.233E-05	.00	2.862E-04	2.972E-04	2.862E-04	2.972E-04		
13 - 14	8.008E-06	.00	7.881E-06	.00	7.122E-06	.00	7.507E-06	.00	6.699E-06	.00	2.721E-04	2.825E-04	2.721E-04	2.825E-04		
14 - 15	4.468E-06	.00	4.388E-06	.00	3.971E-06	.00	4.207E-06	.00	3.725E-06	.00	2.610E-04	2.710E-04	2.610E-04	2.710E-04		
15 - 16	3.051E-06	.00	3.010E-06	.00	2.731E-06	0.00	2.908E-06	0.00	2.559E-06	0.00	2.467E-04	2.561E-04	2.467E-04	2.561E-04		
16 - 17	2.229E-06	0.00	2.220E-06	0.00	2.014E-06	0.00	2.163E-06	0.00	1.886E-06	0.00	2.391E-04	2.483E-04	2.391E-04	2.483E-04		
17 - 18	1.670E-06	0.00	1.686E-06	0.00	1.528E-06	0.00	1.650E-06	0.00	1.430E-06	0.00	2.339E-04	2.428E-04	2.339E-04	2.428E-04		
18 - 19	1.312E-06	0.00	1.346E-06	0.00	1.217E-06	0.00	1.323E-06	0.00	1.139E-06	0.00	2.114E-04	2.195E-04	2.114E-04	2.195E-04		
19 - 20	1.053E-06	0.00	1.096E-06	0.00	0.	0.00	1.081E-06	0.00	0.	0.00	1.667E-04	1.730E-04	1.667E-04	1.730E-04		
20 - 21	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.216E-04	1.262E-04	1.216E-04	1.262E-04		
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.973E-05	9.316E-05	8.973E-05	9.316E-05		
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.806E-05	7.067E-05	6.806E-05	7.067E-05		
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.297E-05	5.500E-05	5.297E-05	5.500E-05		
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.323E-05	4.489E-05	4.323E-05	4.489E-05		
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.307E-05	2.395E-05	2.307E-05	2.395E-05		
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.587E-06	6.839E-06	6.587E-06	6.839E-06		
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.734E-06	1.800E-06	1.734E-06	1.800E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 3.471378 MICROMETERS

FREQUENCY = 2880.700 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.301E-02	.00	2.722E-02	.00	4.241E-03	.00	1.492E-02	.00	1.209E-03	.00	1.527E-02	1.589E-02	7.439E-02	7.742E-02
0 - 1	3.134E-02	.00	2.013E-02	.00	3.287E-03	.00	1.087E-02	.00	1.142E-03	.00	1.042E-02	1.084E-02	4.690E-02	4.882E-02
1 - 2	1.684E-02	.00	1.048E-02	.00	1.957E-03	.00	5.783E-03	.00	8.775E-04	.00	4.547E-03	4.732E-03	1.509E-02	1.570E-02
2 - 3	8.133E-03	.00	4.929E-03	.00	1.146E-03	.00	3.056E-03	.00	5.636E-04	.00	1.940E-03	2.019E-03	5.241E-03	5.455E-03
3 - 4	3.143E-03	.00	2.191E-03	.00	5.875E-04	.00	1.577E-03	.00	3.252E-04	.00	9.010E-04	9.377E-04	2.289E-03	2.383E-03
4 - 5	1.347E-03	.00	9.677E-04	.00	2.836E-04	.00	7.776E-04	.00	1.630E-04	.00	5.610E-04	5.839E-04	8.362E-04	8.703E-04
5 - 6	6.670E-04	.00	4.479E-04	.00	1.432E-04	.00	3.639E-04	.00	7.990E-05	.00	4.098E-04	4.265E-04	4.098E-04	4.265E-04
6 - 7	3.059E-04	.00	2.261E-04	.00	7.023E-05	.00	1.650E-04	.00	4.348E-05	.00	3.301E-04	3.436E-04	3.301E-04	3.436E-04
7 - 8	1.404E-04	.00	1.161E-04	.00	3.426E-05	.00	7.542E-05	.00	2.285E-05	.00	3.230E-04	3.362E-04	3.230E-04	3.362E-04
8 - 9	6.624E-05	.00	5.900E-05	.00	1.947E-05	.00	3.413E-05	.00	1.365E-05	.00	3.210E-04	3.341E-04	3.210E-04	3.341E-04
9 - 10	3.150E-05	.00	3.190E-05	.00	1.251E-05	.00	1.614E-05	.00	9.544E-06	.00	3.104E-04	3.231E-04	3.104E-04	3.231E-04
10 - 11	1.594E-05	.00	1.633E-05	.00	8.224E-06	.00	1.032E-05	.00	6.831E-06	.00	2.968E-04	3.089E-04	2.968E-04	3.089E-04
11 - 12	8.872E-06	.00	8.678E-06	.00	6.033E-06	.00	7.263E-06	.00	4.933E-06	.00	2.944E-04	3.064E-04	2.944E-04	3.064E-04
12 - 13	5.601E-06	.00	5.200E-06	.00	4.224E-06	.00	5.095E-06	.00	3.548E-06	.00	2.900E-04	3.018E-04	2.900E-04	3.018E-04
13 - 14	3.386E-06	.00	3.494E-06	.00	2.905E-06	.00	3.682E-06	.00	2.561E-06	.00	2.756E-04	2.868E-04	2.756E-04	2.868E-04
14 - 15	2.296E-06	.00	2.615E-06	.00	2.126E-06	.00	2.713E-06	.00	1.862E-06	.00	2.644E-04	2.752E-04	2.644E-04	2.752E-04
15 - 16	1.458E-06	.00	1.854E-06	.00	1.533E-06	.00	1.904E-06	.00	1.342E-06	0.00	2.499E-04	2.601E-04	2.499E-04	2.601E-04
16 - 17	0.	.00	1.318E-06	0.00	1.118E-06	0.00	1.442E-06	0.00	0.	0.00	2.423E-04	2.521E-04	2.423E-04	2.521E-04
17 - 18	0.	0.00	0.	0.00	0.	0.00	1.070E-06	0.00	0.	0.00	2.369E-04	2.466E-04	2.369E-04	2.466E-04
18 - 19	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.142E-04	2.229E-04	2.142E-04	2.229E-04
19 - 20	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.688E-04	1.757E-04	1.688E-04	1.757E-04
20 - 21	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.232E-04	1.282E-04	1.232E-04	1.282E-04
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	9.090E-05	9.461E-05	9.090E-05	9.461E-05
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.895E-05	7.176E-05	6.895E-05	7.176E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.366E-05	5.585E-05	5.366E-05	5.585E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.380E-05	4.558E-05	4.380E-05	4.558E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.337E-05	2.433E-05	2.337E-05	2.433E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.673E-06	6.945E-06	6.673E-06	6.945E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.756E-06	1.828E-06	1.756E-06	1.828E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.422618 MICROMETERS

FREQUENCY = 2921.740 WAVENUMBERS

		TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
	0	5.854E-01	.00	3.601E-01	.00	4.533E-02	.00	1.879E-01	.00	1.025E-02	.00	1.546E-02	1.613E-02	7.532E-02	7.858E-02
0 -	1	4.237E-01	.00	2.644E-01	.00	3.449E-02	.00	1.348E-01	.00	9.890E-03	.00	1.055E-02	1.101E-02	4.749E-02	4.954E-02
1 -	2	2.221E-01	.00	1.345E-01	.00	1.971E-02	.00	6.858E-02	.00	7.607E-03	.00	4.604E-03	4.803E-03	1.528E-02	1.594E-02
2 -	3	1.040E-01	.00	6.068E-02	.00	1.100E-02	.00	3.433E-02	.00	4.694E-03	.00	1.964E-03	2.049E-03	5.307E-03	5.536E-03
3 -	4	3.829E-02	.00	2.535E-02	.00	5.260E-03	.00	1.654E-02	.00	2.587E-03	.00	9.123E-04	9.517E-04	2.318E-03	2.418E-03
4 -	5	1.516E-02	.00	1.036E-02	.00	2.341E-03	.00	7.520E-03	.00	1.258E-03	.00	5.680E-04	5.926E-04	8.467E-04	8.833E-04
5 -	6	6.866E-03	.00	4.384E-03	.00	1.124E-03	.00	3.173E-03	.00	6.447E-04	.00	4.149E-04	4.328E-04	4.149E-04	4.328E-04
6 -	7	2.848E-03	.00	2.024E-03	.00	5.673E-04	.00	1.305E-03	.00	3.903E-04	.00	3.343E-04	3.487E-04	3.343E-04	3.487E-04
7 -	8	1.183E-03	.00	9.591E-04	.00	3.108E-04	.00	5.755E-04	.00	2.502E-04	.00	3.270E-04	3.412E-04	3.270E-04	3.412E-04
8 -	9	5.313E-04	.00	4.665E-04	.00	2.038E-04	.00	2.897E-04	.00	1.741E-04	.00	3.251E-04	3.391E-04	3.251E-04	3.391E-04
9 -	10	2.616E-04	.00	2.595E-04	.00	1.499E-04	.00	1.646E-04	.00	1.261E-04	.00	3.143E-04	3.279E-04	3.143E-04	3.279E-04
10 -	11	1.525E-04	.00	1.503E-04	.00	1.045E-04	.00	1.183E-04	.00	9.164E-05	.00	3.005E-04	3.135E-04	3.005E-04	3.135E-04
11 -	12	9.988E-05	.00	9.753E-05	.00	7.690E-05	.00	8.549E-05	.00	6.694E-05	.00	2.981E-04	3.110E-04	2.981E-04	3.110E-04
12 -	13	7.259E-05	.00	6.865E-05	.00	5.586E-05	.00	6.233E-05	.00	4.858E-05	.00	2.936E-04	3.063E-04	2.936E-04	3.063E-04
13 -	14	4.946E-05	.00	4.933E-05	.00	3.985E-05	.00	4.623E-05	.00	3.542E-05	.00	2.791E-04	2.911E-04	2.791E-04	2.911E-04
14 -	15	3.711E-05	.00	3.718E-05	.00	2.957E-05	.00	3.429E-05	.00	2.595E-05	.00	2.677E-04	2.793E-04	2.677E-04	2.793E-04
15 -	16	2.608E-05	.00	2.638E-05	.00	2.148E-05	.00	2.405E-05	.00	1.880E-05	0.00	2.531E-04	2.640E-04	2.531E-04	2.640E-04
16 -	17	1.742E-05	.00	1.874E-05	.00	1.578E-05	0.00	1.822E-05	0.00	1.376E-05	0.00	2.453E-04	2.559E-04	2.453E-04	2.559E-04
17 -	18	1.267E-05	0.00	1.365E-05	0.00	1.156E-05	0.00	1.352E-05	0.00	1.003E-05	0.00	2.399E-04	2.503E-04	2.399E-04	2.503E-04
18 -	19	9.174E-06	0.00	1.019E-05	0.00	8.243E-06	0.00	1.004E-05	0.00	7.314E-06	0.00	2.168E-04	2.262E-04	2.168E-04	2.262E-04
19 -	20	6.530E-06	0.00	7.466E-06	0.00	5.860E-06	0.00	7.497E-06	0.00	5.311E-06	0.00	1.710E-04	1.784E-04	1.710E-04	1.784E-04
20 -	21	4.842E-06	0.00	5.496E-06	0.00	4.512E-06	0.00	5.477E-06	0.00	3.868E-06	0.00	1.247E-04	1.301E-04	1.247E-04	1.301E-04
21 -	22	3.550E-06	0.00	4.093E-06	0.00	3.144E-06	0.00	4.048E-06	0.00	2.818E-06	0.00	9.204E-05	9.602E-05	9.204E-05	9.602E-05
22 -	23	2.571E-06	0.00	2.845E-06	0.00	2.443E-06	0.00	3.052E-06	0.00	2.038E-06	0.00	6.982E-05	7.283E-05	6.982E-05	7.283E-05
23 -	24	1.902E-06	0.00	2.346E-06	0.00	1.677E-06	0.00	2.265E-06	0.00	1.489E-06	0.00	5.433E-05	5.668E-05	5.433E-05	5.668E-05
24 -	25	1.425E-06	0.00	1.609E-06	0.00	1.310E-06	0.00	1.618E-06	0.00	1.081E-06	0.00	4.435E-05	4.626E-05	4.435E-05	4.626E-05
25 -	30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.367E-05	2.469E-05	2.367E-05	2.469E-05
30 -	35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.757E-06	7.049E-06	6.757E-06	7.049E-06
35 -	40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.778E-06	1.855E-06	1.778E-06	1.855E-06
40 -	45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 -	50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 -	70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -	100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.403919 MICROMETERS

FREQUENCY = 2937.790 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.787E+00	.00	1.412E+00	.00	8.819E-01	.00	1.117E+00	.00	8.275E-01	.00	1.553E-02	1.622E-02	7.569E-02	7.903E-02
0 - 1	1.476E+00	.00	1.206E+00	.00	8.159E-01	.00	9.881E-01	.00	7.740E-01	.00	1.060E-02	1.107E-02	4.772E-02	4.983E-02
1 - 2	1.061E+00	.00	8.979E-01	.00	6.900E-01	.00	7.840E-01	.00	6.757E-01	.00	4.626E-03	4.830E-03	1.535E-02	1.603E-02
2 - 3	7.733E-01	.00	6.911E-01	.00	6.057E-01	.00	6.313E-01	.00	5.812E-01	.00	1.974E-03	2.061E-03	5.333E-03	5.568E-03
3 - 4	5.758E-01	.00	5.492E-01	.00	5.053E-01	.00	5.412E-01	.00	4.947E-01	.00	9.167E-04	9.572E-04	2.329E-03	2.432E-03
4 - 5	4.612E-01	.00	4.453E-01	.00	4.260E-01	.00	4.323E-01	.00	4.170E-01	.00	5.706E-04	5.960E-04	8.508E-04	8.884E-04
5 - 6	3.830E-01	.00	3.769E-01	.00	3.516E-01	.00	3.818E-01	.00	3.446E-01	.00	4.169E-04	4.353E-04	4.169E-04	4.353E-04
6 - 7	3.119E-01	.00	3.023E-01	.00	2.958E-01	.00	2.973E-01	.00	2.819E-01	.00	3.359E-04	3.507E-04	3.359E-04	3.507E-04
7 - 8	2.555E-01	.00	2.623E-01	.00	2.308E-01	.00	2.394E-01	.00	2.249E-01	.00	3.286E-04	3.431E-04	3.286E-04	3.431E-04
8 - 9	2.110E-01	.00	2.003E-01	.00	1.842E-01	.00	2.039E-01	.00	1.756E-01	.00	3.266E-04	3.411E-04	3.266E-04	3.411E-04
9 - 10	1.659E-01	.00	1.550E-01	.00	1.519E-01	.00	1.611E-01	.00	1.342E-01	.00	3.158E-04	3.298E-04	3.158E-04	3.298E-04
10 - 11	1.337E-01	.00	1.284E-01	.00	1.122E-01	.00	1.295E-01	.00	1.012E-01	.00	3.020E-04	3.153E-04	3.020E-04	3.153E-04
11 - 12	1.024E-01	.00	1.003E-01	.00	8.490E-02	.00	9.071E-02	.00	7.602E-02	.00	2.995E-04	3.128E-04	2.995E-04	3.128E-04
12 - 13	8.102E-02	.00	7.714E-02	.00	6.367E-02	.00	6.870E-02	.00	5.634E-02	.00	2.950E-04	3.081E-04	2.950E-04	3.081E-04
13 - 14	5.825E-02	.00	5.761E-02	.00	4.650E-02	.00	5.234E-02	.00	4.176E-02	.00	2.804E-04	2.928E-04	2.804E-04	2.928E-04
14 - 15	4.556E-02	.00	4.413E-02	.00	3.512E-02	.00	3.934E-02	.00	3.096E-02	.00	2.690E-04	2.809E-04	2.690E-04	2.809E-04
15 - 16	3.343E-02	.00	3.166E-02	.00	2.580E-02	.00	2.788E-02	.00	2.264E-02	.00	2.543E-04	2.655E-04	2.543E-04	2.655E-04
16 - 17	2.301E-02	.00	2.265E-02	.00	1.911E-02	0.00	2.127E-02	0.00	1.671E-02	0.00	2.465E-04	2.574E-04	2.465E-04	2.574E-04
17 - 18	1.677E-02	0.00	1.660E-02	0.00	1.409E-02	0.00	1.585E-02	0.00	1.225E-02	0.00	2.410E-04	2.517E-04	2.410E-04	2.517E-04
18 - 19	1.197E-02	0.00	1.241E-02	0.00	1.010E-02	0.00	1.182E-02	0.00	8.983E-03	0.00	2.179E-04	2.275E-04	2.179E-04	2.275E-04
19 - 20	8.465E-03	0.00	9.079E-03	0.00	7.448E-03	0.00	8.841E-03	0.00	6.552E-03	0.00	1.718E-04	1.794E-04	1.718E-04	1.794E-04
20 - 21	6.118E-03	0.00	6.662E-03	0.00	5.551E-03	0.00	6.462E-03	0.00	4.787E-03	0.00	1.253E-04	1.309E-04	1.253E-04	1.309E-04
21 - 22	4.408E-03	0.00	4.941E-03	0.00	3.865E-03	0.00	4.773E-03	0.00	3.494E-03	0.00	9.249E-05	9.657E-05	9.249E-05	9.657E-05
22 - 23	3.149E-03	0.00	3.408E-03	0.00	3.003E-03	0.00	3.596E-03	0.00	2.532E-03	0.00	7.015E-05	7.325E-05	7.015E-05	7.325E-05
23 - 24	2.304E-03	0.00	2.790E-03	0.00	2.056E-03	0.00	2.656E-03	0.00	1.851E-03	0.00	5.460E-05	5.701E-05	5.460E-05	5.701E-05
24 - 25	1.704E-03	0.00	1.895E-03	0.00	1.602E-03	0.00	1.871E-03	0.00	1.344E-03	0.00	4.456E-05	4.653E-05	4.456E-05	4.653E-05
25 - 30	7.370E-04	0.00	8.574E-04	0.00	6.585E-04	0.00	8.599E-04	0.00	5.687E-04	0.00	2.378E-05	2.483E-05	2.378E-05	2.483E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	2.005E-04	0.00	0.	0.00	6.790E-06	7.089E-06	6.790E-06	7.089E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.787E-06	1.866E-06	1.787E-06	1.866E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.376462 MICROMETERS

FREQUENCY = 2961.680 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.935E+00	.00	4.834E+00	.00	9.764E-01	.00	2.949E+00	.00	2.866E-01	.00	1.564E-02	1.636E-02	7.623E-02	7.970E-02
0 - 1	5.743E+00	.00	3.993E+00	.00	8.379E-01	.00	2.417E+00	.00	2.985E-01	.00	1.068E-02	1.116E-02	4.806E-02	5.025E-02
1 - 2	3.978E+00	.00	2.609E+00	.00	6.103E-01	.00	1.633E+00	.00	2.779E-01	.00	4.659E-03	4.871E-03	1.549E-02	1.616E-02
2 - 3	2.412E+00	.00	1.547E+00	.00	4.284E-01	.00	1.085E+00	.00	2.120E-01	.00	1.988E-03	2.078E-03	5.371E-03	5.615E-03
3 - 4	1.156E+00	.00	8.551E-01	.00	2.575E-01	.00	6.789E-01	.00	1.397E-01	.00	9.233E-04	9.653E-04	2.346E-03	2.453E-03
4 - 5	6.138E-01	.00	4.556E-01	.00	1.389E-01	.00	4.005E-01	.00	7.757E-02	.00	5.749E-04	6.010E-04	8.569E-04	8.959E-04
5 - 6	3.644E-01	.00	2.444E-01	.00	7.440E-02	.00	2.138E-01	.00	3.396E-02	.00	4.199E-04	4.390E-04	4.199E-04	4.390E-04
6 - 7	1.910E-01	.00	1.393E-01	.00	3.369E-02	.00	1.063E-01	.00	1.639E-02	.00	3.383E-04	3.537E-04	3.383E-04	3.537E-04
7 - 8	9.486E-02	.00	7.530E-02	.00	1.294E-02	.00	4.789E-02	.00	5.868E-03	.00	3.310E-04	3.461E-04	3.310E-04	3.461E-04
8 - 9	4.356E-02	.00	3.876E-02	.00	5.324E-03	.00	1.700E-02	.00	2.312E-03	.00	3.290E-04	3.439E-04	3.290E-04	3.439E-04
9 - 10	1.776E-02	.00	1.913E-02	.00	2.456E-03	.00	5.313E-03	.00	1.566E-03	.00	3.181E-04	3.326E-04	3.181E-04	3.326E-04
10 - 11	6.146E-03	.00	7.538E-03	.00	1.489E-03	.00	2.385E-03	.00	1.029E-03	.00	3.041E-04	3.180E-04	3.041E-04	3.180E-04
11 - 12	2.046E-03	.00	2.254E-03	.00	1.171E-03	.00	1.452E-03	.00	6.858E-04	.00	3.017E-04	3.154E-04	3.017E-04	3.154E-04
12 - 13	7.797E-04	.00	7.423E-04	.00	6.512E-04	.00	7.188E-04	.00	4.556E-04	.00	2.971E-04	3.107E-04	2.971E-04	3.107E-04
13 - 14	3.763E-04	.00	3.738E-04	.00	3.188E-04	.00	3.559E-04	.00	2.913E-04	.00	2.824E-04	2.953E-04	2.824E-04	2.953E-04
14 - 15	2.601E-04	.00	2.546E-04	.00	2.123E-04	.00	2.363E-04	.00	1.915E-04	.00	2.710E-04	2.833E-04	2.710E-04	2.833E-04
15 - 16	1.850E-04	.00	1.796E-04	.00	1.520E-04	.00	1.658E-04	.00	1.366E-04	.00	2.561E-04	2.678E-04	2.561E-04	2.678E-04
16 - 17	1.295E-04	.00	1.297E-04	.00	1.123E-04	0.00	1.253E-04	0.00	1.006E-04	0.00	2.483E-04	2.596E-04	2.483E-04	2.596E-04
17 - 18	9.481E-05	0.00	9.516E-05	0.00	8.356E-05	0.00	9.429E-05	0.00	7.464E-05	0.00	2.428E-04	2.538E-04	2.428E-04	2.538E-04
18 - 19	6.953E-05	0.00	7.367E-05	0.00	6.226E-05	0.00	7.241E-05	0.00	5.646E-05	0.00	2.195E-04	2.294E-04	2.195E-04	2.294E-04
19 - 20	5.152E-05	0.00	5.630E-05	0.00	4.774E-05	0.00	5.630E-05	0.00	4.298E-05	0.00	1.730E-04	1.809E-04	1.730E-04	1.809E-04
20 - 21	4.024E-05	0.00	4.461E-05	0.00	3.806E-05	0.00	4.473E-05	0.00	3.387E-05	0.00	1.262E-04	1.320E-04	1.262E-04	1.320E-04
21 - 22	3.266E-05	0.00	3.673E-05	0.00	3.020E-05	0.00	3.696E-05	0.00	2.751E-05	0.00	9.315E-05	9.739E-05	9.315E-05	9.739E-05
22 - 23	2.630E-05	0.00	2.909E-05	0.00	2.500E-05	0.00	3.038E-05	0.00	2.197E-05	0.00	7.066E-05	7.387E-05	7.066E-05	7.387E-05
23 - 24	2.243E-05	0.00	2.596E-05	0.00	2.047E-05	0.00	2.595E-05	0.00	1.838E-05	0.00	5.499E-05	5.749E-05	5.499E-05	5.749E-05
24 - 25	1.931E-05	0.00	2.221E-05	0.00	1.815E-05	0.00	2.277E-05	0.00	1.581E-05	0.00	4.488E-05	4.692E-05	4.488E-05	4.692E-05
25 - 30	1.058E-05	0.00	1.188E-05	0.00	8.954E-06	0.00	1.219E-05	0.00	7.934E-06	0.00	2.395E-05	2.504E-05	2.395E-05	2.504E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	2.770E-06	0.00	0.	0.00	6.838E-06	7.150E-06	6.838E-06	7.150E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.800E-06	1.882E-06	1.800E-06	1.882E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.352881 MICROMETERS

FREQUENCY = 2982.510 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.909E+00	.00	2.608E+00	.00	4.485E-01	.00	1.507E+00	.00	1.176E-01	.00	1.574E-02	1.648E-02	7.671E-02	8.028E-02		
0 - 1	3.020E+00	.00	2.024E+00	.00	3.614E-01	.00	1.154E+00	.00	1.172E-01	.00	1.074E-02	1.124E-02	4.836E-02	5.062E-02		
1 - 2	1.818E+00	.00	1.160E+00	.00	2.313E-01	.00	6.769E-01	.00	9.773E-02	.00	4.688E-03	4.907E-03	1.556E-02	1.628E-02		
2 - 3	9.649E-01	.00	5.988E-01	.00	1.429E-01	.00	3.915E-01	.00	6.569E-02	.00	2.000E-03	2.094E-03	5.404E-03	5.656E-03		
3 - 4	4.839E-01	.00	2.875E-01	.00	7.516E-02	.00	2.133E-01	.00	3.813E-02	.00	9.291E-04	9.723E-04	2.361E-03	2.471E-03		
4 - 5	1.856E-01	.00	1.336E-01	.00	3.546E-02	.00	1.098E-01	.00	1.780E-02	.00	5.785E-04	6.054E-04	8.623E-04	9.024E-04		
5 - 6	9.609E-02	.00	6.283E-02	.00	1.682E-02	.00	5.112E-02	.00	7.539E-03	.00	4.225E-04	4.422E-04	4.225E-04	4.422E-04		
6 - 7	4.423E-02	.00	3.158E-02	.00	7.032E-03	.00	2.232E-02	.00	3.532E-03	.00	3.404E-04	3.563E-04	3.404E-04	3.563E-04		
7 - 8	1.939E-02	.00	1.522E-02	.00	2.715E-03	.00	9.065E-03	.00	1.510E-03	.00	3.331E-04	3.486E-04	3.331E-04	3.486E-04		
8 - 9	8.111E-03	.00	7.106E-03	.00	1.269E-03	.00	3.154E-03	.00	8.258E-04	.00	3.310E-04	3.465E-04	3.310E-04	3.465E-04		
9 - 10	3.154E-03	.00	3.308E-03	.00	7.503E-04	.00	1.135E-03	.00	5.982E-04	.00	3.201E-04	3.350E-04	3.201E-04	3.350E-04		
10 - 11	1.182E-03	.00	1.354E-03	.00	5.117E-04	.00	6.384E-04	.00	4.394E-04	.00	3.060E-04	3.203E-04	3.060E-04	3.203E-04		
11 - 12	5.224E-04	.00	5.522E-04	.00	3.971E-04	.00	4.388E-04	.00	3.388E-04	.00	3.036E-04	3.177E-04	3.036E-04	3.177E-04		
12 - 13	3.110E-04	.00	3.124E-04	.00	2.849E-04	.00	2.974E-04	.00	2.692E-04	.00	2.990E-04	3.129E-04	2.990E-04	3.129E-04		
13 - 14	2.109E-04	.00	2.227E-04	.00	2.075E-04	.00	2.188E-04	.00	2.185E-04	.00	2.842E-04	2.974E-04	2.842E-04	2.974E-04		
14 - 15	1.685E-04	.00	1.750E-04	.00	1.683E-04	.00	1.780E-04	.00	1.846E-04	.00	2.726E-04	2.853E-04	2.726E-04	2.853E-04		
15 - 16	1.293E-04	.00	1.350E-04	.00	1.393E-04	.00	1.469E-04	.00	1.646E-04	.00	2.577E-04	2.697E-04	2.577E-04	2.697E-04		
16 - 17	9.401E-05	.00	1.077E-04	.00	1.183E-04	0.00	1.300E-04	.00	1.455E-04	0.00	2.498E-04	2.614E-04	2.498E-04	2.614E-04		
17 - 18	7.115E-05	.00	9.149E-05	0.00	1.018E-04	0.00	1.161E-04	0.00	1.248E-04	0.00	2.443E-04	2.557E-04	2.443E-04	2.557E-04		
18 - 19	5.512E-05	0.00	8.187E-05	0.00	8.737E-05	0.00	1.014E-04	0.00	1.056E-04	0.00	2.208E-04	2.311E-04	2.208E-04	2.311E-04		
19 - 20	4.656E-05	0.00	7.284E-05	0.00	7.661E-05	0.00	8.585E-05	0.00	8.646E-05	0.00	1.741E-04	1.822E-04	1.741E-04	1.822E-04		
20 - 21	4.205E-05	0.00	6.454E-05	0.00	6.528E-05	0.00	7.055E-05	0.00	6.927E-05	0.00	1.270E-04	1.329E-04	1.270E-04	1.329E-04		
21 - 22	3.935E-05	0.00	5.659E-05	0.00	5.380E-05	0.00	5.671E-05	0.00	5.480E-05	0.00	9.373E-05	9.810E-05	9.373E-05	9.810E-05		
22 - 23	3.717E-05	0.00	4.717E-05	0.00	4.434E-05	0.00	4.518E-05	0.00	4.277E-05	0.00	7.110E-05	7.441E-05	7.110E-05	7.441E-05		
23 - 24	3.463E-05	0.00	3.981E-05	0.00	3.474E-05	0.00	3.669E-05	0.00	3.242E-05	0.00	5.533E-05	5.791E-05	5.533E-05	5.791E-05		
24 - 25	3.095E-05	0.00	3.208E-05	0.00	2.838E-05	0.00	2.977E-05	0.00	2.415E-05	0.00	4.516E-05	4.727E-05	4.516E-05	4.727E-05		
25 - 30	1.873E-05	0.00	1.850E-05	0.00	1.408E-05	0.00	1.571E-05	0.00	1.111E-05	0.00	2.410E-05	2.522E-05	2.410E-05	2.522E-05		
30 - 35	5.407E-06	0.00	5.467E-06	0.00	3.468E-06	0.00	4.887E-06	0.00	2.635E-06	0.00	6.881E-06	7.202E-06	6.881E-06	7.202E-06		
35 - 40	1.281E-06	0.00	1.445E-06	0.00	0.	0.00	1.519E-06	0.00	0.	0.00	1.811E-06	1.895E-06	1.811E-06	1.895E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 3.304463 MICROMETERS

FREQUENCY = 3026.210 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.244E+00	.00	3.101E+00	.00	7.801E-01	.00	2.004E+00	.00	2.739E-01	.00	1.595E-02	1.677E-02	7.771E-02	8.150E-02		
0 - 1	3.335E+00	.00	2.413E+00	.00	6.274E-01	.00	1.553E+00	.00	2.577E-01	.00	1.088E-02	1.142E-02	4.899E-02	5.139E-02		
1 - 2	2.083E+00	.00	1.403E+00	.00	4.007E-01	.00	9.406E-01	.00	2.021E-01	.00	4.749E-03	4.981E-03	1.576E-02	1.653E-02		
2 - 3	1.135E+00	.00	7.508E-01	.00	2.484E-01	.00	5.643E-01	.00	1.355E-01	.00	2.026E-03	2.125E-03	5.475E-03	5.742E-03		
3 - 4	4.953E-01	.00	3.796E-01	.00	1.353E-01	.00	3.200E-01	.00	8.034E-02	.00	9.411E-04	9.871E-04	2.392E-03	2.508E-03		
4 - 5	2.493E-01	.00	1.874E-01	.00	6.817E-02	.00	1.739E-01	.00	3.984E-02	.00	5.860E-04	6.146E-04	8.735E-04	9.162E-04		
5 - 6	1.370E-01	.00	9.448E-02	.00	3.479E-02	.00	8.800E-02	.00	1.809E-02	.00	4.280E-04	4.489E-04	4.280E-04	4.489E-04		
6 - 7	6.869E-02	.00	5.134E-02	.00	1.557E-02	.00	4.254E-02	.00	8.926E-03	.00	3.448E-04	3.617E-04	3.448E-04	3.617E-04		
7 - 8	3.336E-02	.00	2.721E-02	.00	6.290E-03	.00	1.921E-02	.00	3.703E-03	.00	3.374E-04	3.539E-04	3.374E-04	3.539E-04		
8 - 9	1.540E-02	.00	1.407E-02	.00	2.989E-03	.00	7.296E-03	.00	1.874E-03	.00	3.353E-04	3.517E-04	3.353E-04	3.517E-04		
9 - 10	6.574E-03	.00	7.237E-03	.00	1.764E-03	.00	2.752E-03	.00	1.466E-03	.00	3.243E-04	3.401E-04	3.243E-04	3.401E-04		
10 - 11	2.610E-03	.00	3.206E-03	.00	1.280E-03	.00	1.548E-03	.00	1.207E-03	.00	3.100E-04	3.252E-04	3.100E-04	3.252E-04		
11 - 12	1.125E-03	.00	1.321E-03	.00	1.065E-03	.00	1.108E-03	.00	1.066E-03	.00	3.075E-04	3.226E-04	3.075E-04	3.226E-04		
12 - 13	6.166E-04	.00	7.359E-04	.00	8.313E-04	.00	7.908E-04	.00	9.408E-04	.00	3.029E-04	3.177E-04	3.029E-04	3.177E-04		
13 - 14	4.046E-04	.00	5.495E-04	.00	6.471E-04	.00	6.160E-04	.00	8.075E-04	.00	2.879E-04	3.020E-04	2.879E-04	3.020E-04		
14 - 15	3.235E-04	.00	4.565E-04	.00	5.486E-04	.00	5.294E-04	.00	7.035E-04	.00	2.762E-04	2.897E-04	2.762E-04	2.897E-04		
15 - 16	2.544E-04	.00	3.771E-04	.00	4.721E-04	.00	4.611E-04	.00	6.467E-04	.00	2.611E-04	2.738E-04	2.611E-04	2.738E-04		
16 - 17	2.009E-04	.00	3.207E-04	.00	4.102E-04	.00	4.135E-04	.00	5.719E-04	0.00	2.531E-04	2.654E-04	2.531E-04	2.654E-04		
17 - 18	1.702E-04	.00	2.889E-04	0.00	3.587E-04	0.00	3.714E-04	0.00	4.838E-04	0.00	2.475E-04	2.596E-04	2.475E-04	2.596E-04		
18 - 19	1.522E-04	0.00	2.683E-04	0.00	3.125E-04	0.00	3.199E-04	0.00	4.034E-04	0.00	2.237E-04	2.346E-04	2.237E-04	2.346E-04		
19 - 20	1.471E-04	0.00	2.413E-04	0.00	2.749E-04	0.00	2.647E-04	0.00	3.258E-04	0.00	1.764E-04	1.850E-04	1.764E-04	1.850E-04		
20 - 21	1.405E-04	0.00	2.123E-04	0.00	2.318E-04	0.00	2.132E-04	0.00	2.582E-04	0.00	1.287E-04	1.350E-04	1.287E-04	1.350E-04		
21 - 22	1.323E-04	0.00	1.831E-04	0.00	1.907E-04	0.00	1.679E-04	0.00	2.029E-04	0.00	9.495E-05	9.959E-05	9.495E-05	9.959E-05		
22 - 23	1.238E-04	0.00	1.491E-04	0.00	1.548E-04	0.00	1.313E-04	0.00	1.583E-04	0.00	7.203E-05	7.554E-05	7.203E-05	7.554E-05		
23 - 24	1.134E-04	0.00	1.204E-04	0.00	1.212E-04	0.00	1.048E-04	0.00	1.195E-04	0.00	5.605E-05	5.879E-05	5.605E-05	5.879E-05		
24 - 25	9.842E-05	0.00	9.556E-05	0.00	9.821E-05	0.00	8.280E-05	0.00	8.955E-05	0.00	4.575E-05	4.799E-05	4.575E-05	4.799E-05		
25 - 30	5.303E-05	0.00	4.974E-05	0.00	4.759E-05	0.00	3.997E-05	0.00	3.917E-05	0.00	2.441E-05	2.561E-05	2.441E-05	2.561E-05		
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.064E-05	0.00	0.	0.00	6.971E-06	7.311E-06	6.971E-06	7.311E-06		
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.835E-06	1.924E-06	1.835E-06	1.924E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 - 100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 3.258783 MICROMETERS

FREQUENCY = 3068.630 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	8.797E-01	.00	6.688E-01	.00	2.088F-01	.00	4.557E-01	.00	1.016E-01	.00	1.615E-02	1.697E-02	7.668E-02	8.269E-02
0 - 1	7.017E-01	.00	5.263E-01	.00	1.712E-01	.00	3.592E-01	.00	9.251E-02	.00	1.102E-02	1.158F-02	4.961E-02	5.213F-02
1 - 2	4.520E-01	.00	3.156E-01	.00	1.140E-01	.00	2.261E-01	.00	7.192E-02	.00	4.809E-03	5.054E-03	1.596E-02	1.677E-02
2 - 3	2.556E-01	.00	1.774E-01	.00	7.555E-02	.00	1.417E-01	.00	5.118E-02	.00	2.052E-03	2.156E-03	5.543E-03	5.826E-03
3 - 4	1.196E-01	.00	9.635E-02	.00	4.603E-02	.00	8.593E-02	.00	3.434E-02	.00	9.529E-04	1.001E-03	2.421E-03	2.545E-03
4 - 5	6.474E-02	.00	5.255E-02	.00	2.793E-02	.00	5.060E-02	.00	2.187E-02	.00	5.933E-04	6.236E-04	8.844E-04	9.295E-04
5 - 6	3.965E-02	.00	3.045E-02	.00	1.778E-02	.00	2.996E-02	.00	1.428E-02	.00	4.334E-04	4.555E-04	4.334E-04	4.555E-04
6 - 7	2.292E-02	.00	1.894E-02	.00	1.155E-02	.00	1.726E-02	.00	1.012E-02	.00	3.491E-04	3.669E-04	3.491E-04	3.669E-04
7 - 8	1.366E-02	.00	1.249E-02	.00	7.518E-03	.00	1.050E-02	.00	7.177E-03	.00	3.416E-04	3.590E-04	3.416E-04	3.590E-04
8 - 9	8.510E-03	.00	8.000E-03	.00	5.471E-03	.00	6.796E-03	.00	5.285E-03	.00	3.395E-04	3.568E-04	3.395E-04	3.568E-04
9 - 10	5.433E-03	.00	5.596E-03	.00	4.344E-03	.00	4.470E-03	.00	3.905E-03	.00	3.283E-04	3.450E-04	3.283E-04	3.450E-04
10 - 11	3.792E-03	.00	3.811E-03	.00	3.150E-03	.00	3.331E-03	.00	2.832E-03	.00	3.139E-04	3.299E-04	3.139E-04	3.299E-04
11 - 12	2.741E-03	.00	2.731E-03	.00	2.333F-03	.00	2.404E-03	.00	2.066E-03	.00	3.114E-04	3.273E-04	3.114E-04	3.273E-04
12 - 13	2.154E-03	.00	2.072E-03	.00	1.699E-03	.00	1.749E-03	.00	1.498E-03	.00	3.067E-04	3.223E-04	3.067E-04	3.223E-04
13 - 14	1.594E-03	.00	1.541E-03	.00	1.215E-03	.00	1.295E-03	.00	1.090E-03	.00	2.915E-04	3.064E-04	2.915E-04	3.064E-04
14 - 15	1.300E-03	.00	1.160E-03	.00	9.064E-04	.00	9.593E-04	.00	7.981E-04	.00	2.796E-04	2.939E-04	2.796E-04	2.939E-04
15 - 16	9.997E-04	.00	8.230E-04	.00	6.626E-04	.00	6.736E-04	.00	5.803E-04	.00	2.643E-04	2.778E-04	2.643E-04	2.778E-04
16 - 17	7.132E-04	.00	5.846E-04	.00	4.898E-04	.00	5.104E-04	.00	4.280E-04	.00	2.562E-04	2.693E-04	2.562E-04	2.693E-04
17 - 18	5.112E-04	.00	4.260E-04	.00	3.610E-04	0.00	3.786E-04	0.00	3.142E-04	0.00	2.506E-04	2.633E-04	2.506E-04	2.633E-04
18 - 19	3.494E-04	0.00	3.161E-04	0.00	2.591E-04	0.00	2.813E-04	0.00	2.310E-04	0.00	2.265E-04	2.380E-04	2.265E-04	2.380E-04
19 - 20	2.375E-04	0.00	2.288E-04	0.00	1.912E-04	0.00	2.100E-04	0.00	1.691E-04	0.00	1.786E-04	1.877E-04	1.786E-04	1.877E-04
20 - 21	1.655E-04	0.00	1.664E-04	0.00	1.424E-04	0.00	1.534E-04	0.00	1.240E-04	0.00	1.307E-04	1.369E-04	1.307E-04	1.369E-04
21 - 22	1.153E-04	0.00	1.225E-04	0.00	9.934E-05	0.00	1.134E-04	0.00	9.12[illegible]E-05	0.00	9.614E-05	1.010E-04	9.614E-05	1.010E-04
22 - 23	8.049E-05	0.00	8.369E-05	0.00	7.725E-05	0.00	8.556E-05	0.00	6.660E-05	0.00	7.292E-05	7.664E-05	7.292E-05	7.664E-05
23 - 24	5.814E-05	0.00	6.781E-05	0.00	5.314E-05	0.00	6.316E-05	0.00	4.911E-05	0.00	5.675E-05	5.965E-05	5.675E-05	5.965E-05
24 - 25	4.254E-05	0.00	4.601E-05	0.00	4.157E-05	0.00	4.432E-05	0.00	3.606E-05	0.00	4.632E-05	4.868E-05	4.632E-05	4.868E-05
25 - 30	1.760E-05	0.00	2.006E-05	0.00	1.704E-05	0.00	1.976E-05	0.00	1.507E-05	0.00	2.472E-05	2.598E-05	2.472E-05	2.598E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	4.289E-06	0.00	0.	0.00	7.058E-06	7.418E-06	7.058E-06	7.418E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.857E-06	1.952E-06	1.857E-06	1.952E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	.	0.	0.

WAVELENGTH = 3.242721 MICROMETERS

FREQUENCY = 3083.830 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.116E+00	.00	8.176E-01	.00	2.112E-01	.00	5.312E-01	.00	8.084E-02	.00	1.622E-02	1.706E-02	7.902E-02	8.311E-02
0 - 1	8.926E-01	.00	6.482E-01	.00	1.739E-01	.00	4.201E-01	.00	7.682E-02	.00	1.107E-02	1.164E-02	4.982E-02	5.240E-02
1 - 2	5.802E-01	.00	3.934E-01	.00	1.170E-01	.00	2.662E-01	.00	6.273E-02	.00	4.830E-03	5.080E-03	1.603E-02	1.685E-02
2 - 3	3.310E-01	.00	2.211E-01	.00	7.710E-02	.00	1.678E-01	.00	4.471E-02	.00	2.061E-03	2.167E-03	5.568E-03	5.856E-03
3 - 4	1.526E-01	.00	1.182E-01	.00	4.522E-02	.00	1.009E-01	.00	2.878E-02	.00	9.571E-04	1.007E-03	2.432E-03	2.558E-03
4 - 5	8.018E-02	.00	6.219E-02	.00	2.507E-02	.00	5.825E-02	.00	1.617E-02	.00	5.959E-04	6.268E-04	8.883E-04	9.343E-04
5 - 6	4.752E-02	.00	3.372E-02	.00	1.423E-02	.00	3.189E-02	.00	8.738E-03	.00	4.353E-04	4.578E-04	4.353E-04	4.578E-04
6 - 7	2.557E-02	.00	1.965E-02	.00	7.528E-03	.00	1.672E-02	.00	5.181E-03	.00	3.507E-04	3.688E-04	3.507E-04	3.688E-04
7 - 8	1.355E-02	.00	1.142E-02	.00	3.829E-03	.00	8.497E-03	.00	2.874E-03	.00	3.431E-04	3.609E-04	3.431E-04	3.609E-04
8 - 9	7.024E-03	.00	6.450E-03	.00	2.273E-03	.00	4.006E-03	.00	1.801E-03	.00	3.410E-04	3.587E-04	3.410E-04	3.587E-04
9 - 10	3.524E-03	.00	3.748E-03	.00	1.560E-03	.00	1.947E-03	.00	1.298E-03	.00	3.298E-04	3.468E-04	3.298E-04	3.468E-04
10 - 11	1.820E-03	.00	1.936E-03	.00	1.081E-03	.00	1.250E-03	.00	9.231E-04	.00	3.153E-04	3.316E-04	3.153E-04	3.316E-04
11 - 12	1.041E-03	.00	1.062E-03	.00	8.056E-04	.00	8.689E-04	.00	6.627E-04	.00	3.128E-04	3.289E-04	3.128E-04	3.289E-04
12 - 13	7.050E-04	.00	6.756E-04	.00	5.579E-04	.00	5.901E-04	.00	4.741E-04	.00	3.080E-04	3.240E-04	3.080E-04	3.240E-04
13 - 14	4.835E-04	.00	4.730E-04	.00	3.787E-04	.00	4.159E-04	.00	3.395E-04	.00	2.928E-04	3.079E-04	2.928E-04	3.079E-04
14 - 15	3.769E-04	.00	3.523E-04	.00	2.785E-04	.00	3.048E-04	.00	2.456E-04	.00	2.809E-04	2.954E-04	2.809E-04	2.954E-04
15 - 16	2.791E-04	.00	2.497E-04	.00	2.027E-04	.00	2.139E-04	.00	1.779E-04	.00	2.655E-04	2.792E-04	2.655E-04	2.792E-04
16 - 17	1.943E-04	.00	1.776E-04	.00	1.495E-04	.00	1.620E-04	.00	1.309E-04	.00	2.573E-04	2.707E-04	2.573E-04	2.707E-04
17 - 18	1.433E-04	.00	1.295E-04	.00	1.101E-04	0.00	1.203E-04	.00	9.594E-05	0.00	2.517E-04	2.647E-04	2.517E-04	2.647E-04
18 - 19	1.044E-04	0.00	9.662E-05	0.00	7.912E-05	0.00	8.961E-05	0.00	7.056E-05	0.00	2.275E-04	2.393E-04	2.275E-04	2.393E-04
19 - 20	6.479E-05	0.00	7.059E-05	0.00	5.854E-05	0.00	6.714E-05	0.00	5.175E-05	0.00	1.794E-04	1.886E-04	1.794E-04	1.886E-04
20 - 21	4.936E-05	0.00	5.193E-05	0.00	4.333E-05	0.00	4.944E-05	0.00	3.823E-05	0.00	1.309E-04	1.376E-04	1.309E-04	1.376E-04
21 - 22	3.554E-05	0.00	3.886E-05	0.00	3.111E-05	0.00	3.697E-05	0.00	2.837E-05	0.00	9.656E-05	1.016E-04	9.656E-05	1.016E-04
22 - 23	2.551E-05	0.00	2.714E-05	0.00	2.439E-05	0.00	2.615E-05	0.00	2.092E-05	0.00	7.325E-05	7.704E-05	7.325E-05	7.704E-05
23 - 24	1.836E-05	0.00	2.235E-05	0.00	1.720E-05	0.00	2.119E-05	0.00	1.570E-05	0.00	5.700E-05	5.995E-05	5.700E-05	5.995E-05
24 - 25	1.436E-05	0.00	1.572E-05	0.00	1.373E-05	0.00	1.541E-05	0.00	1.183E-05	0.00	4.653E-05	4.893E-05	4.653E-05	4.893E-05
25 - 30	5.272E-06	0.00	7.160E-06	0.00	5.831E-06	0.00	7.132E-06	0.00	5.139E-06	0.00	2.483E-05	2.611E-05	2.483E-05	2.611E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.587E-06	0.00	0.	0.00	7.089E-06	7.456E-06	7.089E-06	7.456E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.866E-06	1.962E-06	1.866E-06	1.962E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.215083 MICROMETERS

FREQUENCY = 3110.340 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.066E+01	.00	1.466E+01	.00	3.171E+00	.00	9.146E+00	.00	9.746E-01	.00	1.634E-02	1.721E-02	7.963E-02	3.385E-02
0 - 1	1.746E+01	.00	1.233E+01	.00	2.766E+00	.00	7.644E+00	.00	1.023E+00	.00	1.115E-02	1.175E-02	5.821E-02	5.287E-02
1 - 2	1.266E+01	.00	8.393E+00	.00	2.091E+00	.00	5.397E+00	.00	9.805E-01	.00	4.867E-03	5.125E-03	1.615E-02	1.701E-02
2 - 3	8.042E+00	.00	5.222E+00	.00	1.532E+00	.00	3.767E+00	.00	7.808E-01	.00	2.077E-03	2.187E-03	5.610E-03	5.908E-03
3 - 4	4.064E+00	.00	3.049E+00	.00	9.706E-01	.00	2.486E+00	.00	5.414E-01	.00	9.644E-04	1.016E-03	2.451E-03	2.581E-03
4 - 5	2.295E+00	.00	1.724E+00	.00	5.563E-01	.00	1.558E+00	.00	3.024E-01	.00	6.005E-04	6.324E-04	8.951E-04	9.426E-04
5 - 6	1.455E+00	.00	9.857E-01	.00	3.179E-01	.00	8.895E-01	.00	1.481E-01	.00	4.386E-04	4.619E-04	4.386E-04	4.619E-04
6 - 7	8.171E-01	.00	6.023E-01	.00	1.531E-01	.00	4.762E-01	.00	7.551E-02	.00	3.534E-04	3.721E-04	3.534E-04	3.721E-04
7 - 8	4.379E-01	.00	3.500E-01	.00	6.164E-02	.00	2.308E-01	.00	2.704E-02	.00	3.457E-04	3.641E-04	3.457E-04	3.641E-04
8 - 9	2.167E-01	.00	1.940E-01	.00	2.579E-02	.00	8.696E-02	.00	9.578E-03	.00	3.436E-04	3.619E-04	3.436E-04	3.619E-04
9 - 10	9.379E-02	.00	1.026E-01	.00	1.145E-02	.00	2.780E-02	.00	6.677E-03	.00	3.323E-04	3.499E-04	3.323E-04	3.499E-04
10 - 11	3.370E-02	.00	4.256E-02	.00	7.010E-03	.00	1.226E-02	.00	4.396E-03	.00	3.177E-04	3.346E-04	3.177E-04	3.346E-04
11 - 12	1.084E-02	.00	1.235E-02	.00	5.968E-03	.00	7.528E-03	.00	2.904E-03	.00	3.151E-04	3.319E-04	3.151E-04	3.319E-04
12 - 13	3.336E-03	.00	3.259E-03	.00	3.077E-03	.00	3.356E-03	.00	1.883E-03	.00	3.104E-04	3.269E-04	3.104E-04	3.269E-04
13 - 14	1.209E-03	.00	1.228E-03	.00	1.162E-03	.00	1.286E-03	.00	1.103E-03	.00	2.950E-04	3.107E-04	2.950E-04	3.107E-04
14 - 15	6.945E-04	.00	7.458E-04	.00	6.927E-04	.00	7.745E-04	.00	6.546E-04	.00	2.630E-04	2.960E-04	2.630E-04	2.980E-04
15 - 16	4.670E-04	.00	5.355E-04	.00	4.942E-04	.00	5.561E-04	.00	4.655E-04	.00	2.675E-04	2.817E-04	2.675E-04	2.817E-04
16 - 17	3.322E-04	.00	4.059E-04	.00	3.728E-04	.00	4.263E-04	.00	3.495E-04	.00	2.593E-04	2.731E-04	2.593E-04	2.731E-04
17 - 18	2.576E-04	.00	3.145E-04	.00	2.865E-04	.00	3.317E-04	.00	2.675E-04	0.00	2.536E-04	2.671E-04	2.536E-04	2.671E-04
18 - 19	2.133E-04	0.00	2.552E-04	0.00	2.285E-04	0.00	2.689E-04	0.00	2.134E-04	0.00	2.292E-04	2.414E-04	2.292E-04	2.414E-04
19 - 20	1.792E-04	0.00	2.105E-04	0.00	1.861E-04	0.00	2.211E-04	0.00	1.727E-04	0.00	1.807E-04	1.903E-04	1.807E-04	1.903E-04
20 - 21	1.603E-04	0.00	1.846E-04	0.00	1.615E-04	0.00	1.928E-04	0.00	1.486E-04	0.00	1.319E-04	1.389E-04	1.319E-04	1.389E-04
21 - 22	1.499E-04	0.00	1.693E-04	0.00	1.456E-04	0.00	1.760E-04	0.00	1.336E-04	0.00	9.730E-05	1.025E-04	9.730E-05	1.025E-04
22 - 23	1.338E-04	0.00	1.494E-04	0.00	1.271E-04	0.00	1.544E-04	0.00	1.154E-04	0.00	7.381E-05	7.772E-05	7.381E-05	7.772E-05
23 - 24	1.257E-04	0.00	1.408E-04	0.00	1.168E-04	0.00	1.438E-04	0.00	1.054E-04	0.00	5.744E-05	6.049E-05	5.744E-05	6.049E-05
24 - 25	1.215E-04	0.00	1.346E-04	0.00	1.107E-04	0.00	1.387E-04	0.00	9.893E-05	0.00	4.688E-05	4.937E-05	4.688E-05	4.937E-05
25 - 30	6.851E-05	0.00	7.547E-05	0.00	5.867E-05	0.00	7.745E-05	0.00	5.290E-05	0.00	2.502E-05	2.635E-05	2.502E-05	2.635E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.709E-05	0.00	0.	0.00	7.143E-06	7.522E-06	7.143E-06	7.522E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.880E-06	1.980E-06	1.880E-06	1.980E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.202931 MICROMETERS

FREQUENCY = 3122.140 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.888E+01	.00	1.416E+01	.00	4.087E+00	.00	9.478E+00	.00	1.755E+00	.00	1.640E-02	1.728E-02	7.990E-02	8.418E-02
0 - 1	1.507E+01	.00	1.117E+01	.00	3.353E+00	.00	7.474E+00	.00	1.636E+00	.00	1.119E-02	1.179E-02	5.038E-02	5.308E-02
1 - 2	9.700E+00	.00	6.707E+00	.00	2.229E+00	.00	4.692E+00	.00	1.297E+00	.00	4.883E-03	5.145E-03	1.621E-02	1.707E-02
2 - 3	5.471E+00	.00	3.748E+00	.00	1.461E+00	.00	2.921E+00	.00	9.139E-01	.00	2.084E-03	2.195E-03	5.629E-03	5.931E-03
3 - 4	2.532E+00	.00	2.008E+00	.00	8.655E-01	.00	1.747E+00	.00	5.934E-01	.00	9.677E-04	1.020E-03	2.459E-03	2.591E-03
4 - 5	1.343E+00	.00	1.070E+00	.00	4.975E-01	.00	1.007E+00	.00	3.508E-01	.00	6.025E-04	6.348E-04	8.981E-04	9.463E-04
5 - 6	8.020E-01	.00	5.984E-01	.00	2.960E-01	.00	5.687E-01	.00	2.058E-01	.00	4.401E-04	4.637E-04	4.401E-04	4.637E-04
6 - 7	4.450E-01	.00	3.573E-01	.00	1.737E-01	.00	3.085E-01	.00	1.308E-01	.00	3.546E-04	3.736E-04	3.546E-04	3.736E-04
7 - 8	2.491E-01	.00	2.206E-01	.00	1.006E-01	.00	1.705E-01	.00	8.095E-02	.00	3.469E-04	3.655E-04	3.469E-04	3.655E-04
8 - 9	1.423E-01	.00	1.313E-01	.00	6.575E-02	.00	9.550E-02	.00	5.408E-02	.00	3.448E-04	3.633E-04	3.448E-04	3.633E-04
9 - 10	8.146E-02	.00	8.340E-02	.00	4.730E-02	.00	5.403E-02	.00	3.908E-02	.00	3.334E-04	3.513E-04	3.334E-04	3.513E-04
10 - 11	4.973E-02	.00	5.031E-02	.00	3.275E-02	.00	3.779E-02	.00	2.832E-02	.00	3.188E-04	3.359E-04	3.188E-04	3.359E-04
11 - 12	3.190E-02	.00	3.145E-02	.00	2.422E-02	.00	2.709E-02	.00	2.064E-02	.00	3.162E-04	3.332E-04	3.162E-04	3.332E-04
12 - 13	2.252E-02	.00	2.125E-02	.00	1.736E-02	.00	1.947E-02	.00	1.495E-02	.00	3.114E-04	3.281E-04	3.114E-04	3.281E-04
13 - 14	1.500E-02	.00	1.503E-02	.00	1.222E-02	.00	1.431E-02	.00	1.086E-02	.00	2.960E-04	3.119E-04	2.960E-04	3.119E-04
14 - 15	1.109E-02	.00	1.131E-02	.00	9.041E-03	.00	1.059E-02	.00	7.941E-03	.00	2.840E-04	2.992E-04	2.840E-04	2.992E-04
15 - 16	7.690E-03	.00	8.036E-03	.00	6.567E-03	.00	7.446E-03	.00	5.752E-03	.00	2.684E-04	2.828E-04	2.684E-04	2.828E-04
16 - 17	5.093E-03	.00	5.715E-03	.00	4.824E-03	.00	5.646E-03	.00	4.210E-03	.00	2.602E-04	2.741E-04	2.602E-04	2.741E-04
17 - 18	3.718E-03	.00	4.170E-03	.00	3.534E-03	.00	4.191E-03	.00	3.068E-03	0.00	2.545E-04	2.681E-04	2.545E-04	2.681E-04
18 - 19	2.723E-03	0.00	3.119E-03	0.00	2.522E-03	0.00	3.117E-03	0.00	2.238E-03	0.00	2.300E-04	2.423E-04	2.300E-04	2.423E-04
19 - 20	1.977E-03	0.00	2.293E-03	0.00	1.856E-03	0.00	2.330E-03	0.00	1.626E-03	0.00	1.814E-04	1.911E-04	1.814E-04	1.911E-04
20 - 21	1.469E-03	0.00	1.694E-03	0.00	1.385E-03	0.00	1.705E-03	0.00	1.187E-03	0.00	1.323E-04	1.394E-04	1.323E-04	1.394E-04
21 - 22	1.090E-03	0.00	1.268E-03	0.00	9.698E-04	0.00	1.264E-03	0.00	8.675E-04	0.00	9.763E-05	1.029E-04	9.763E-05	1.029E-04
22 - 23	7.962E-04	0.00	8.866E-04	0.00	7.556E-04	0.00	9.548E-04	0.00	6.297E-04	0.00	7.406E-05	7.803E-05	7.406E-05	7.803E-05
23 - 24	5.939E-04	0.00	7.343E-04	0.00	5.238E-04	0.00	7.117E-04	0.00	4.626E-04	0.00	5.764E-05	6.073E-05	5.764E-05	6.073E-05
24 - 25	4.488E-04	0.00	5.080E-04	0.00	4.109E-04	0.00	5.119E-04	0.00	3.392E-04	0.00	4.704E-05	4.956E-05	4.704E-05	4.956E-05
25 - 30	2.030E-04	0.00	2.383E-04	0.00	1.723E-04	0.00	2.420E-04	0.00	1.471E-04	0.00	2.510E-05	2.645E-05	2.510E-05	2.645E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	5.852E-05	0.00	0.	0.00	7.167E-06	7.552E-06	7.167E-06	7.552E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.886E-06	1.987E-06	1.886E-06	1.987E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.194796 MICROMETERS

FREQUENCY = 3130.090 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	8.011E-01	.00	5.812E-01	.00	1.477E-01	.00	3.739E-01	.00	5.542E-02	.00	1.643E-02	1.735E-02	8.006E-02	8.440E-02		
0 - 1	6.247E-01	.00	4.499E-01	.00	1.186E-01	.00	2.885E-01	.00	5.156E-02	.00	1.122E-02	1.182E-02	5.049E-02	5.322E-02		
1 - 2	3.830E-01	.00	2.596E-01	.00	7.578E-02	.00	1.736E-01	.00	4.006E-02	.00	4.895E-03	5.159E-03	1.624E-02	1.712E-02		
2 - 3	2.085E-01	.00	1.384E-01	.00	4.736E-02	.00	1.039E-01	.00	2.704E-02	.00	2.088E-03	2.201E-03	5.642E-03	5.947E-03		
3 - 4	9.124E-02	.00	7.021E-02	.00	2.631E-02	.00	5.926E-02	.00	1.644E-02	.00	9.699E-04	1.022E-03	2.465E-03	2.598E-03		
4 - 5	4.592E-02	.00	3.512E-02	.00	1.380E-02	.00	3.253E-02	.00	8.665E-03	.00	6.039E-04	6.365E-04	9.002E-04	9.488E-04		
5 - 6	2.571E-02	.00	1.817E-02	.00	7.420E-03	.00	1.697E-02	.00	4.348E-03	.00	4.411E-04	4.649E-04	4.411E-04	4.649E-04		
6 - 7	1.324E-02	.00	1.013E-02	.00	3.690E-03	.00	8.501E-03	.00	2.380E-03	.00	3.554E-04	3.746E-04	3.554E-04	3.746E-04		
7 - 8	6.729E-03	.00	5.651E-03	.00	1.746E-03	.00	4.121E-03	.00	1.179E-03	.00	3.477E-04	3.665E-04	3.477E-04	3.665E-04		
8 - 9	3.389E-03	.00	3.068E-03	.00	9.560E-04	.00	1.827E-03	.00	6.673E-04	.00	3.456E-04	3.642E-04	3.456E-04	3.642E-04		
9 - 10	1.618E-03	.00	1.719E-03	.00	6.018E-04	.00	8.178E-04	.00	4.658E-04	.00	3.342E-04	3.522E-04	3.342E-04	3.522E-04		
10 - 11	7.872E-04	.00	8.580E-04	.00	3.987E-04	.00	4.964E-04	.00	3.278E-04	.00	3.195E-04	3.368E-04	3.195E-04	3.368E-04		
11 - 12	4.186E-04	.00	4.219E-04	.00	2.951E-04	.00	3.385E-04	.00	2.333E-04	.00	3.169E-04	3.340E-04	3.169E-04	3.340E-04		
12 - 13	2.576E-04	.00	2.431E-04	.00	1.998E-04	.00	2.261E-04	.00	1.658E-04	.00	3.122E-04	3.290E-04	3.122E-04	3.290E-04		
13 - 14	1.606E-04	.00	1.518E-04	.00	1.328E-04	.00	1.577E-04	.00	1.180E-04	.00	2.967E-04	3.127E-04	2.967E-04	3.127E-04		
14 - 15	1.146E-04	.00	1.200E-04	.00	9.663E-05	.00	1.153E-04	.00	8.498E-05	.00	2.846E-04	3.000E-04	2.846E-04	3.000E-04		
15 - 16	7.764E-05	.00	8.497E-05	.00	6.984E-05	.00	8.090E-05	.00	6.130E-05	.00	2.691E-04	2.836E-04	2.691E-04	2.836E-04		
16 - 17	5.060E-05	.00	6.044E-05	.00	5.118E-05	.00	6.129E-05	.00	4.476E-05	.00	2.608E-04	2.749E-04	2.608E-04	2.749E-04		
17 - 18	3.722E-05	.00	4.413E-05	.00	3.746E-05	.00	4.543E-05	.00	3.258E-05	0.00	2.550E-04	2.688E-04	2.550E-04	2.688E-04		
18 - 19	2.759E-05	.00	3.310E-05	0.00	2.680E-05	0.00	3.388E-05	0.00	2.381E-05	0.00	2.305E-04	2.430E-04	2.305E-04	2.430E-04		
19 - 20	2.046E-05	0.00	2.450E-05	0.00	1.979E-05	0.00	2.540E-05	0.00	1.736E-05	0.00	1.818E-04	1.916E-04	1.818E-04	1.916E-04		
20 - 21	1.550E-05	0.00	1.828E-05	0.00	1.488E-05	0.00	1.872E-05	0.00	1.276E-05	0.00	1.326E-04	1.398E-04	1.326E-04	1.398E-04		
21 - 22	1.177E-05	0.00	1.386E-05	0.00	1.059E-05	0.00	1.402E-05	0.00	9.454E-06	0.00	9.786E-05	1.031E-04	9.786E-05	1.031E-04		
22 - 23	8.730E-06	0.00	9.275E-06	0.00	8.318E-06	0.00	1.068E-05	0.00	6.953E-06	0.00	7.423E-05	7.823E-05	7.423E-05	7.823E-05		
23 - 24	6.773E-06	0.00	8.276E-06	0.00	5.910E-06	0.00	8.098E-06	0.00	5.219E-06	0.00	5.777E-05	6.089E-05	5.777E-05	6.089E-05		
24 - 25	5.210E-06	0.00	5.908E-06	0.00	4.743E-06	0.00	5.996E-06	0.00	3.946E-06	0.00	4.715E-05	4.969E-05	4.715E-05	4.969E-05		
25 - 30	2.434E-06	0.00	2.843E-06	0.00	2.353E-06	0.00	2.899E-06	0.00	1.767E-06	0.00	2.516E-05	2.652E-05	2.516E-05	2.652E-05		
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.184E-06	7.572E-06	7.184E-06	7.572E-06		
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.891E-06	1.993E-06	1.891E-06	1.993E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 3.173928 MICROMETERS

FREQUENCY = 3150.670 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.982E-01	.00	3.693E-01	.00	1.262E-01	.00	2.516E-01	.00	7.360E-02	.00	1.653E-02	1.744E-02	8.055E-02	8.498E-02
0 - 1	3.928E-01	.00	2.933E-01	.00	1.073E-01	.00	2.018E-01	.00	6.868E-02	.00	1.128E-02	1.190E-02	5.079E-02	5.358E-02
1 - 2	2.495E-01	.00	1.820E-01	.00	7.689E-02	.00	1.514E-01	.00	5.620E-02	.00	4.923E-03	5.194E-03	1.634E-02	1.724E-02
2 - 3	1.474E-01	.00	1.099E-01	.00	5.660E-02	.00	8.634E-02	.00	4.269E-02	.00	2.101E-03	2.216E-03	5.675E-03	5.987E-03
3 - 4	7.962E-02	.00	6.694E-02	.00	3.898E-02	.00	5.833E-02	.00	3.130E-02	.00	9.756E-04	1.029E-03	2.479E-03	2.615E-03
4 - 5	4.878E-02	.00	4.226E-02	.00	2.691E-02	.00	3.782E-02	.00	2.202E-02	.00	6.075E-04	6.408E-04	9.055E-04	9.553E-04
5 - 6	3.291E-02	.00	2.869E-02	.00	1.870E-02	.00	2.626E-02	.00	1.520E-02	.00	4.437E-04	4.681E-04	4.437E-04	4.681E-04
6 - 7	2.174E-02	.00	1.947E-02	.00	1.330E-02	.00	1.655E-02	.00	1.057E-02	.00	3.575E-04	3.771E-04	3.575E-04	3.771E-04
7 - 8	1.464E-02	.00	1.421E-02	.00	8.930E-03	.00	1.118E-02	.00	7.182E-03	.00	3.497E-04	3.690E-04	3.497E-04	3.690E-04
8 - 9	1.018E-02	.00	9.370E-03	.00	6.229E-03	.00	7.911E-03	.00	4.966E-03	.00	3.476E-04	3.667E-04	3.476E-04	3.667E-04
9 - 10	6.877E-03	.00	6.673E-03	.00	4.521E-03	.00	5.025E-03	.00	3.599E-03	.00	3.361E-04	3.546E-04	3.361E-04	3.546E-04
10 - 11	4.771E-03	.00	4.502E-03	.00	3.096E-03	.00	3.682E-03	.00	2.664E-03	.00	3.214E-04	3.390E-04	3.214E-04	3.390E-04
11 - 12	3.205E-03	.00	3.063E-03	.00	2.290E-03	.00	2.722E-03	.00	1.972E-03	.00	3.188E-04	3.363E-04	3.188E-04	3.363E-04
12 - 13	2.231E-03	.00	2.068E-03	.00	1.679E-03	.00	2.031E-03	.00	1.446E-03	.00	3.140E-04	3.312E-04	3.140E-04	3.312E-04
13 - 14	1.399E-03	.00	1.447E-03	.00	1.205E-03	.00	1.530E-03	.00	1.063E-03	.00	2.984E-04	3.148E-04	2.984E-04	3.148E-04
14 - 15	9.614E-04	.00	1.099E-03	.00	8.939E-04	.00	1.142E-03	.00	7.830E-04	.00	2.863E-04	3.020E-04	2.863E-04	3.020E-04
15 - 16	6.134E-04	.00	7.834E-04	.00	6.477E-04	.00	8.052E-04	.00	5.670E-04	.00	2.706E-04	2.855E-04	2.706E-04	2.855E-04
16 - 17	3.818E-04	.00	5.583E-04	.00	4.739E-04	.00	6.120E-04	.00	4.127E-04	.00	2.623E-04	2.767E-04	2.623E-04	2.767E-04
17 - 18	2.832E-04	.00	4.078E-04	.00	3.454E-04	.00	4.549E-04	.00	2.988E-04	0.00	2.565E-04	2.706E-04	2.565E-04	2.706E-04
18 - 19	2.135E-04	.00	3.070E-04	0.00	2.449E-04	0.00	3.384E-04	0.00	2.163E-04	0.00	2.319E-04	2.446E-04	2.319E-04	2.446E-04
19 - 20	1.631E-04	0.00	2.287E-04	0.00	1.796E-04	0.00	2.521E-04	0.00	1.558E-04	0.00	1.828E-04	1.929E-04	1.828E-04	1.929E-04
20 - 21	1.317E-04	0.00	1.703E-04	0.00	1.337E-04	0.00	1.864E-04	0.00	1.125E-04	0.00	1.334E-04	1.407E-04	1.334E-04	1.407E-04
21 - 22	1.026E-04	0.00	1.285E-04	0.00	9.310E-05	0.00	1.363E-04	0.00	8.129E-05	0.00	9.843E-05	1.038E-04	9.843E-05	1.038E-04
22 - 23	7.636E-05	0.00	9.096E-05	0.00	7.233E-05	0.00	1.027E-04	0.00	5.827E-05	0.00	7.466E-05	7.877E-05	7.466E-05	7.877E-05
23 - 24	5.838E-05	0.00	7.537E-05	0.00	4.956E-05	0.00	7.644E-05	0.00	4.214E-05	0.00	5.811E-05	6.130E-05	5.811E-05	6.130E-05
24 - 25	4.475E-05	0.00	5.282E-05	0.00	3.863E-05	0.00	5.834E-05	0.00	3.030E-05	0.00	4.743E-05	5.003E-05	4.743E-05	5.003E-05
25 - 30	2.150E-05	0.00	2.516E-05	0.00	1.622E-05	0.00	2.730E-05	0.00	1.333E-05	0.00	2.531E-05	2.670E-05	2.531E-05	2.670E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	7.320E-06	0.00	0.	0.00	7.226E-06	7.623E-06	7.226E-06	7.623E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.902E-06	2.006E-06	1.902E-06	2.006E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.149269 MICROMETERS

FREQUENCY = 3175.340 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.009E+00	.00	3.821E+00	.00	5.650E-01	.00	2.093E+00	.00	1.383E-01	.00	1.665E-02	1.758E-02	8.111E-02	8.567E-02
0 - 1	4.576E+00	.00	2.943E+00	.00	4.590E-01	.00	1.583E+00	.00	1.369E-01	.00	1.136E-02	1.200E-02	5.114E-02	5.401E-02
1 - 2	2.668E+00	.00	1.651E+00	.00	2.812E-01	.00	8.984E-01	.00	1.122E-01	.00	4.958E-03	5.236E-03	1.645E-02	1.738E-02
2 - 3	1.376E+00	.00	8.235E-01	.00	1.692E-01	.00	5.003E-01	.00	7.336E-02	.00	2.115E-03	2.234E-03	5.715E-03	6.036E-03
3 - 4	5.547E-01	.00	3.787E-01	.00	8.579E-02	.00	2.636E-01	.00	4.109E-02	.00	9.824E-04	1.038E-03	2.496E-03	2.637E-03
4 - 5	2.410E-01	.00	1.678E-01	.00	3.851E-02	.00	1.302E-01	.00	1.811E-02	.00	6.117E-04	6.460E-04	9.118E-04	9.630E-04
5 - 6	1.182E-01	.00	7.495E-02	.00	1.729E-02	.00	5.751E-02	.00	6.991E-03	.00	4.460E-04	4.719E-04	4.468E-04	4.719E-04
6 - 7	5.140E-02	.00	3.576E-02	.00	6.610E-03	.00	2.376E-02	.00	2.866E-03	.00	3.600E-04	3.802E-04	3.600E-04	3.802E-04
7 - 8	2.112E-02	.00	1.618E-02	.00	2.148E-03	.00	9.021E-03	.00	8.496E-04	.00	3.522E-04	3.720E-04	3.522E-04	3.720E-04
8 - 9	8.218E-03	.00	7.083E-03	.00	7.441E-04	.00	2.723E-03	.00	2.584E-04	.00	3.501E-04	3.697E-04	3.501E-04	3.697E-04
9 - 10	2.873E-03	.00	3.020E-03	.00	2.824E-04	.00	7.216E-04	.00	1.576E-04	.00	3.385E-04	3.575E-04	3.385E-04	3.575E-04
10 - 11	8.478E-04	.00	1.040E-03	.00	1.531E-04	.00	2.779E-04	.00	9.278E-05	.00	3.236E-04	3.418E-04	3.236E-04	3.418E-04
11 - 12	2.346E-04	.00	2.613E-04	.00	1.170E-04	.00	1.545E-04	.00	5.604E-05	.00	3.210E-04	3.391E-04	3.210E-04	3.391E-04
12 - 13	6.570E-05	.00	6.323E-05	.00	5.612E-05	.00	6.445E-05	.00	3.393E-05	.00	3.162E-04	3.339E-04	3.162E-04	3.339E-04
13 - 14	2.279E-05	.00	2.299E-05	.00	2.080E-05	.00	2.445E-05	.00	1.916E-05	.00	3.005E-04	3.174E-04	3.005E-04	3.174E-04
14 - 15	1.274E-05	.00	1.354E-05	.00	1.207E-05	.00	1.441E-05	.00	1.112E-05	.00	2.883E-04	3.045E-04	2.883E-04	3.045E-04
15 - 16	8.423E-06	.00	9.321E-06	.00	8.322E-06	.00	9.971E-06	.00	7.677E-06	.00	2.725E-04	2.878E-04	2.725E-04	2.878E-04
16 - 17	5.937E-06	.00	6.804E-06	.00	6.078E-06	.00	7.456E-06	.00	5.597E-06	.00	2.642E-04	2.790E-04	2.642E-04	2.790E-04
17 - 18	4.415E-06	.00	5.119E-06	.00	4.549E-06	.00	5.671E-06	.00	4.172E-06	.00	2.583E-04	2.728E-04	2.583E-04	2.728E-04
18 - 19	3.444E-06	.00	4.026E-06	.00	3.520E-06	0.00	4.430E-06	0.00	3.245E-06	0.00	2.335E-04	2.466E-04	2.335E-04	2.466E-04
19 - 20	2.794E-06	0.00	3.240E-06	0.00	2.789E-06	0.00	3.550E-06	0.00	2.560E-06	0.00	1.841E-04	1.945E-04	1.841E-04	1.945E-04
20 - 21	2.367E-06	0.00	2.761E-06	0.00	2.360E-06	0.00	2.992E-06	0.00	2.149E-06	0.00	1.343E-04	1.419E-04	1.343E-04	1.419E-04
21 - 22	2.144E-06	0.00	2.471E-06	0.00	2.072E-06	0.00	2.653E-06	0.00	1.885E-06	0.00	9.912E-05	1.047E-04	9.912E-05	1.047E-04
22 - 23	1.878E-06	0.00	2.144E-06	0.00	1.774E-06	0.00	2.278E-06	0.00	1.598E-06	0.00	7.519E-05	7.941E-05	7.519E-05	7.941E-05
23 - 24	1.737E-06	0.00	1.999E-06	0.00	1.600E-06	0.00	2.079E-06	0.00	1.440E-06	0.00	5.851E-05	6.180E-05	5.851E-05	6.180E-05
24 - 25	1.561E-06	0.00	1.880E-06	0.00	1.494E-06	0.00	1.990E-06	0.00	1.331E-06	0.00	4.776E-05	5.044E-05	4.776E-05	5.044E-05
25 - 30	0.	0.00	1.087E-06	0.00	0.	0.00	1.147E-06	0.00	0.	0.00	2.549E-05	2.692E-05	2.549E-05	2.692E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.276E-06	7.685E-06	7.276E-06	7.685E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.915E-06	2.022E-06	1.915E-06	2.022E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.148820 MICROMETERS

FREQUENCY = 3176.600 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.894E+00	.00	1.397E+00	.00	3.686E-01	.00	9.144E-01	.00	1.348E-01	.00	1.665E-02	1.759E-02	8.114E-02	8.570E-02
0 - 1	1.498E+00	.00	1.087E+00	.00	2.966E-01	.00	7.098E-01	.00	1.252E-01	.00	1.137E-02	1.200E-02	5.116E-02	5.404E-02
1 - 2	9.351E-01	.00	6.339E-01	.00	1.898E-01	.00	4.328E-01	.00	9.772E-02	.00	4.959E-03	5.238E-03	1.646E-02	1.738E-02
2 - 3	5.121E-01	.00	3.413E-01	.00	1.179E-01	.00	2.619E-01	.00	6.562E-02	.00	2.116E-03	2.235E-03	5.717E-03	6.038E-03
3 - 4	2.249E-01	.00	1.741E-01	.00	6.457E-02	.00	1.497E-01	.00	3.898E-02	.00	9.828E-04	1.038E-03	2.497E-03	2.638E-03
4 - 5	1.127E-01	.00	8.673E-02	.00	3.273E-02	.00	8.222E-02	.00	1.926E-02	.00	6.119E-04	6.463E-04	9.121E-04	9.634E-04
5 - 6	6.375E-02	.00	4.410E-02	.00	1.670E-02	.00	4.205E-02	.00	8.536E-03	.00	4.470E-04	4.721E-04	4.470E-04	4.721E-04
6 - 7	3.233E-02	.00	2.418E-02	.00	7.262E-03	.00	2.056E-02	.00	3.992E-03	.00	3.601E-04	3.803E-04	3.601E-04	3.803E-04
7 - 8	1.584E-02	.00	1.286E-02	.00	2.671E-03	.00	9.249E-03	.00	1.321E-03	.00	3.523E-04	3.721E-04	3.523E-04	3.721E-04
8 - 9	7.274E-03	.00	6.636E-03	.00	1.035E-03	.00	3.281E-03	.00	4.215E-04	.00	3.502E-04	3.699E-04	3.502E-04	3.699E-04
9 - 10	2.996E-03	.00	3.325E-03	.00	4.315E-04	.00	1.083E-03	.00	2.595E-04	.00	3.386E-04	3.576E-04	3.386E-04	3.576E-04
10 - 11	1.041E-03	.00	1.329E-03	.00	2.432E-04	.00	4.053E-04	.00	1.490E-04	.00	3.237E-04	3.419E-04	3.237E-04	3.419E-04
11 - 12	3.254E-04	.00	3.766E-04	.00	1.671E-04	.00	2.204E-04	.00	8.778E-05	.00	3.211E-04	3.392E-04	3.211E-04	3.392E-04
12 - 13	9.734E-05	.00	9.672E-05	.00	8.727E-05	.00	8.765E-05	.00	5.176E-05	.00	3.163E-04	3.341E-04	3.163E-04	3.341E-04
13 - 14	3.457E-05	.00	3.337E-05	.00	2.953E-05	.00	2.978E-05	.00	2.781E-05	.00	3.006E-04	3.175E-04	3.006E-04	3.175E-04
14 - 15	1.997E-05	.00	1.835E-05	.00	1.636E-05	.00	1.651E-05	.00	1.533E-05	.00	2.884E-04	3.046E-04	2.884E-04	3.046E-04
15 - 16	1.418E-05	.00	1.248E-05	.00	1.121E-05	.00	1.134E-05	.00	1.049E-05	.00	2.726E-04	2.879E-04	2.726E-04	2.879E-04
16 - 17	1.064E-05	.00	9.153E-06	.00	8.259E-06	.00	8.393E-06	.00	7.738E-06	.00	2.643E-04	2.791E-04	2.643E-04	2.791E-04
17 - 18	7.869E-06	.00	6.923E-06	.00	6.264E-06	.00	6.380E-06	.00	5.865E-06	.00	2.584E-04	2.730E-04	2.584E-04	2.730E-04
18 - 19	5.974E-06	.00	5.492E-06	.00	4.994E-06	0.00	5.102E-06	0.00	4.682E-06	0.00	2.336E-04	2.467E-04	2.336E-04	2.467E-04
19 - 20	4.647E-06	0.00	4.432E-06	0.00	4.062E-06	0.00	4.161E-06	0.00	3.814E-06	0.00	1.842E-04	1.945E-04	1.842E-04	1.945E-04
20 - 21	3.887E-06	0.00	3.829E-06	0.00	3.527E-06	0.00	3.630E-06	0.00	3.324E-06	0.00	1.344E-04	1.419E-04	1.344E-04	1.419E-04
21 - 22	3.417E-06	0.00	3.470E-06	0.00	3.206E-06	0.00	3.324E-06	0.00	3.035E-06	0.00	9.916E-05	1.047E-04	9.916E-05	1.047E-04
22 - 23	2.912E-06	0.00	3.007E-06	0.00	2.798E-06	0.00	2.919E-06	0.00	2.656E-06	0.00	7.521E-05	7.944E-05	7.521E-05	7.944E-05
23 - 24	2.661E-06	0.00	2.769E-06	0.00	2.592E-06	0.00	2.706E-06	0.00	2.465E-06	0.00	5.853E-05	6.182E-05	5.853E-05	6.182E-05
24 - 25	2.502E-06	0.00	2.624E-06	0.00	2.464E-06	0.00	2.567E-06	0.00	2.351E-06	0.00	4.777E-05	5.046E-05	4.777E-05	5.046E-05
25 - 30	1.275E-06	0.00	1.354E-06	0.00	1.284E-06	0.00	1.341E-06	0.00	1.213E-06	0.00	2.549E-05	2.693E-05	2.549E-05	2.693E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.279E-06	7.688E-06	7.279E-06	7.688E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.916E-06	2.023E-06	1.916E-06	2.023E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.112550 MICROMETERS

FREQUENCY = 3212.800 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.637E+00	.00	1.961E+00	.00	5.287E-01	.00	1.294E+00	.00	1.938E-01	.00	1.682E-02	1.780E-02	8.197E-02	8.672E-02
0 - 1	2.085E+00	.00	1.531E+00	.00	4.262E-01	.00	1.008E+00	.00	1.812E-01	.00	1.148E-02	1.215E-02	5.158E-02	5.457E-02
1 - 2	1.320E+00	.00	8.984E-01	.00	2.738E-01	.00	6.187E-01	.00	1.417E-01	.00	5.010E-03	5.300E-03	1.653E-02	1.759E-02
2 - 3	7.279E-01	.00	4.871E-01	.00	1.708E-01	.00	3.767E-01	.00	9.540E-02	.00	2.138E-03	2.261E-03	5.775E-03	6.110E-03
3 - 4	3.219E-01	.00	2.501E-01	.00	9.384E-02	.00	2.164E-01	.00	5.683E-02	.00	9.928E-04	1.050E-03	2.523E-03	2.669E-03
4 - 5	1.625E-01	.00	1.254E-01	.00	4.773E-02	.00	1.194E-01	.00	2.815E-02	.00	6.182E-04	6.539E-04	9.214E-04	9.748E-04
5 - 6	9.244E-02	.00	6.406E-02	.00	2.442E-02	.00	6.132E-02	.00	1.250E-02	.00	4.515E-04	4.776E-04	4.515E-04	4.776E-04
6 - 7	4.709E-02	.00	3.527E-02	.00	1.064E-02	.00	3.008E-02	.00	5.850E-03	.00	3.638E-04	3.848E-04	3.638E-04	3.848E-04
7 - 8	2.316E-02	.00	1.881E-02	.00	3.919E-03	.00	1.356E-02	.00	1.938E-03	.00	3.559E-04	3.765E-04	3.559E-04	3.765E-04
8 - 9	1.066E-02	.00	9.731E-03	.00	1.520E-03	.00	4.816E-03	.00	6.189E-04	.00	3.537E-04	3.742E-04	3.537E-04	3.742E-04
9 - 10	4.399E-03	.00	4.881E-03	.00	6.337E-04	.00	1.473E-03	.00	3.812E-04	.00	3.421E-04	3.619E-04	3.421E-04	3.619E-04
10 - 11	1.529E-03	.00	1.953E-03	.00	3.575E-04	.00	5.956E-04	.00	2.193E-04	.00	3.270E-04	3.460E-04	3.270E-04	3.460E-04
11 - 12	4.785E-04	.00	5.536E-04	.00	2.750E-04	.00	3.242E-04	.00	1.293E-04	.00	3.244E-04	3.432E-04	3.244E-04	3.432E-04
12 - 13	1.434E-04	.00	1.425E-04	.00	1.285E-04	.00	1.291E-04	.00	7.633E-05	.00	3.195E-04	3.380E-04	3.195E-04	3.380E-04
13 - 14	5.115E-05	.00	4.937E-05	.00	4.371E-05	.00	4.405E-05	.00	4.114E-05	.00	3.037E-04	3.213E-04	3.037E-04	3.213E-04
14 - 15	2.964E-05	.00	2.726E-05	.00	2.427E-05	.00	2.448E-05	.00	2.272E-05	.00	2.914E-04	3.082E-04	2.914E-04	3.082E-04
15 - 16	2.102E-05	.00	1.855E-05	.00	1.665E-05	.00	1.681E-05	.00	1.557E-05	.00	2.754E-04	2.913E-04	2.754E-04	2.913E-04
16 - 17	1.573E-05	.00	1.361E-05	.00	1.226E-05	.00	1.246E-05	.00	1.147E-05	.00	2.669E-04	2.824E-04	2.669E-04	2.824E-04
17 - 18	1.164E-05	.00	1.029E-05	.00	9.300E-06	.00	9.466E-06	.00	8.699E-06	.00	2.611E-04	2.762E-04	2.611E-04	2.762E-04
18 - 19	8.838E-06	.00	8.151E-06	.00	7.407E-06	0.00	7.564E-06	.00	6.940E-06	0.00	2.360E-04	2.496E-04	2.360E-04	2.496E-04
19 - 20	6.874E-06	0.00	6.571E-06	0.00	6.015E-06	0.00	6.166E-06	0.00	5.646E-06	0.00	1.861E-04	1.968E-04	1.851E-04	1.968E-04
20 - 21	5.745E-06	0.00	5.667E-06	0.00	5.216E-06	0.00	5.370E-06	0.00	4.913E-06	0.00	1.357E-04	1.436E-04	1.357E-04	1.436E-04
21 - 22	5.045E-06	0.00	5.130E-06	0.00	4.736E-06	0.00	4.914E-06	0.00	4.478E-06	0.00	1.002E-04	1.060E-04	1.002E-04	1.060E-04
22 - 23	4.297E-06	0.00	4.442E-06	0.00	4.127E-06	0.00	4.310E-06	0.00	3.914E-06	0.00	7.598E-05	8.038E-05	7.598E-05	8.038E-05
23 - 24	3.924E-06	0.00	4.084E-06	0.00	3.819E-06	0.00	3.995E-06	0.00	3.630E-06	0.00	5.913E-05	6.255E-05	5.913E-05	6.255E-05
24 - 25	3.687E-06	0.00	3.868E-06	0.00	3.627E-06	0.00	3.785E-06	0.00	3.456E-06	0.00	4.826E-05	5.105E-05	4.826E-05	5.105E-05
25 - 30	1.879E-06	0.00	1.995E-06	0.00	1.889E-06	0.00	1.976E-06	0.00	1.783E-06	0.00	2.575E-05	2.725E-05	2.575E-05	2.725E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.353E-06	7.779E-06	7.353E-06	7.779E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.935E-06	2.047E-06	1.935E-06	2.047E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.095803 MICROMETERS

FREQUENCY = 3230.180 WAVENUMBERS

HT(KM)	TROPICAL $k_m(km^{-1})$	TROPICAL $\sigma_m(km^{-1})$	MIDLATITUDE SUMMER $k_m(km^{-1})$	MIDLATITUDE SUMMER $\sigma_m(km^{-1})$	MIDLATITUDE WINTER $k_m(km^{-1})$	MIDLATITUDE WINTER $\sigma_m(km^{-1})$	SUBARCTIC SUMMER $k_m(km^{-1})$	SUBARCTIC SUMMER $\sigma_m(km^{-1})$	SUBARCTIC WINTER $k_m(km^{-1})$	SUBARCTIC WINTER $\sigma_m(km^{-1})$	AEROSOL CLEAR $k_a(km^{-1})$	AEROSOL CLEAR $\sigma_a(km^{-1})$	AEROSOL HAZY $k_a(km^{-1})$	AEROSOL HAZY $\sigma_a(km^{-1})$
0	2.143E+01	.00	1.529E+01	.00	3.607E+00	.00	9.662E+00	.00	1.233E+00	.00	1.690E-02	1.790E-02	8.237E-02	8.720E-02
0 - 1	1.727E+01	.00	1.224E+01	.00	2.969E+00	.00	7.673E+00	.00	1.189E+00	.00	1.154E-02	1.221E-02	5.193E-02	5.498E-02
1 - 2	1.133E+01	.00	7.510E+00	.00	1.986E+00	.00	4.871E+00	.00	9.774E-01	.00	5.034E-03	5.330E-03	1.671E-02	1.769E-02
2 - 3	6.493E+00	.00	4.207E+00	.00	1.285E+00	.00	3.049E+00	.00	6.807E-01	.00	2.148E-03	2.274E-03	5.803E-03	6.144E-03
3 - 4	2.957E+00	.00	2.210E+00	.00	7.233E-01	.00	1.800E+00	.00	4.156E-01	.00	9.976E-04	1.056E-03	2.535E-03	2.684E-03
4 - 5	1.505E+00	.00	1.125E+00	.00	3.714E-01	.00	1.011E+00	.00	2.074E-01	.00	6.212E-04	6.576E-04	9.259E-04	9.802E-04
5 - 6	8.614E-01	.00	5.804E-01	.00	1.907E-01	.00	5.204E-01	.00	9.174E-02	.00	4.537E-04	4.803E-04	4.537E-04	4.803E-04
6 - 7	4.383E-01	.00	3.207E-01	.00	8.294E-02	.00	2.529E-01	.00	4.255E-02	.00	3.655E-04	3.870E-04	3.655E-04	3.870E-04
7 - 8	2.130E-01	.00	1.696E-01	.00	3.031E-02	.00	1.121E-01	.00	1.389E-02	.00	3.576E-04	3.786E-04	3.576E-04	3.786E-04
8 - 9	9.649E-02	.00	8.625E-02	.00	1.160E-02	.00	3.891E-02	.00	4.336E-03	.00	3.555E-04	3.763E-04	3.555E-04	3.763E-04
9 - 10	3.876E-02	.00	4.224E-02	.00	4.742E-03	.00	1.156E-02	.00	2.748E-03	.00	3.437E-04	3.639E-04	3.437E-04	3.639E-04
10 - 11	1.299E-02	.00	1.639E-02	.00	2.677E-03	.00	4.675E-03	.00	1.622E-03	.00	3.286E-04	3.479E-04	3.286E-04	3.479E-04
11 - 12	3.912E-03	.00	4.472E-03	.00	2.111E-03	.00	2.632E-03	.00	9.801E-04	.00	3.260E-04	3.451E-04	3.260E-04	3.451E-04
12 - 13	1.119E-03	.00	1.098E-03	.00	1.004E-03	.00	1.078E-03	.00	5.916E-04	.00	3.211E-04	3.399E-04	3.211E-04	3.399E-04
13 - 14	3.766E-04	.00	3.734E-04	.00	3.434E-04	.00	3.734E-04	.00	3.238E-04	.00	3.052E-04	3.231E-04	3.052E-04	3.231E-04
14 - 15	2.081E-04	.00	2.087E-04	.00	1.921E-04	.00	2.113E-04	.00	1.811E-04	.00	2.928E-04	3.099E-04	2.928E-04	3.099E-04
15 - 16	1.422E-04	.00	1.446E-04	.00	1.330E-04	.00	1.484E-04	.00	1.253E-04	.00	2.767E-04	2.930E-04	2.767E-04	2.930E-04
16 - 17	1.043E-04	.00	1.078E-04	.00	9.876E-05	.00	1.119E-04	.00	9.285E-05	.00	2.682E-04	2.840E-04	2.682E-04	2.840E-04
17 - 18	7.821E-05	.00	8.261E-05	.00	7.530E-05	.00	8.642E-05	.00	7.056E-05	.00	2.623E-04	2.777E-04	2.623E-04	2.777E-04
18 - 19	6.164E-05	.00	6.672E-05	.00	6.029E-05	0.00	7.013E-05	.00	5.648E-05	0.00	2.371E-04	2.510E-04	2.371E-04	2.510E-04
19 - 20	5.004E-05	0.00	5.512E-05	0.00	4.928E-05	0.00	5.788E-05	0.00	4.597E-05	0.00	1.870E-04	1.979E-04	1.870E-04	1.979E-04
20 - 21	4.392E-05	0.00	4.875E-05	0.00	4.310E-05	0.00	5.108E-05	0.00	4.001E-05	0.00	1.364E-04	1.444E-04	1.364E-04	1.444E-04
21 - 22	4.077E-05	0.00	4.520E-05	0.00	3.945E-05	0.00	4.723E-05	0.00	3.647E-05	0.00	1.007E-04	1.066E-04	1.007E-04	1.066E-04
22 - 23	3.635E-05	0.00	4.035E-05	0.00	3.457E-05	0.00	4.175E-05	0.00	3.179E-05	0.00	7.635E-05	8.083E-05	7.635E-05	8.083E-05
23 - 24	3.434E-05	0.00	3.821E-05	0.00	3.216E-05	0.00	3.932E-05	0.00	2.938E-05	0.00	5.942E-05	6.290E-05	5.942E-05	6.290E-05
24 - 25	3.340E-05	0.00	3.702E-05	0.00	3.066E-05	0.00	3.846E-05	0.00	2.787E-05	0.00	4.850E-05	5.134E-05	4.850E-05	5.134E-05
25 - 30	1.906E-05	0.00	2.114E-05	0.00	1.629E-05	0.00	2.194E-05	0.00	1.482E-05	0.00	2.588E-05	2.740E-05	2.588E-05	2.740E-05
30 - 35	2.819E-06	0.00	3.280E-06	0.00	1.402E-06	0.00	5.157E-06	0.00	1.106E-06	0.00	7.389E-06	7.822E-06	7.389E-06	7.822E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.945E-06	2.059E-06	1.945E-06	2.059E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.065106 MICROMETERS

FREQUENCY = 3262.530 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.946E+00	.00	2.613E+00	.00	4.477E-01	.00	1.499E+00	.00	1.184E-01	.00	1.706E-02	1.808E-02	8.311E-02	8.810E-02
0 - 1	2.992E+00	.00	1.992E+00	.00	3.532E-01	.00	1.127E+00	.00	1.149E-01	.00	1.164E-02	1.234E-02	5.240E-02	5.555E-02
1 - 2	1.731E+00	.00	1.098E+00	.00	2.163E-01	.00	6.344E-01	.00	9.111E-02	.00	5.080E-03	5.385E-03	1.686E-02	1.787E-02
2 - 3	8.830E-01	.00	5.640E-01	.00	1.278E-01	.00	3.513E-01	.00	5.845E-02	.00	2.167E-03	2.298E-03	5.855E-03	6.207E-03
3 - 4	3.548E-01	.00	2.506E-01	.00	6.441E-02	.00	1.844E-01	.00	3.236E-02	.00	1.007E-03	1.067E-03	2.558E-03	2.712E-03
4 - 5	1.566E-01	.00	1.120E-01	.00	2.908E-02	.00	9.148E-02	.00	1.426E-02	.00	6.267E-04	6.644E-04	9.342E-04	9.904E-04
5 - 6	7.818E-02	.00	5.071E-02	.00	1.316E-02	.00	4.112E-02	.00	5.512E-03	.00	4.578E-04	4.853E-04	4.578E-04	4.853E-04
6 - 7	3.480E-02	.00	2.465E-02	.00	5.065E-03	.00	1.740E-02	.00	2.246E-03	.00	3.688E-04	3.910E-04	3.688E-04	3.910E-04
7 - 8	1.474E-02	.00	1.145E-02	.00	1.646E-03	.00	6.757E-03	.00	6.487E-04	.00	3.609E-04	3.825E-04	3.609E-04	3.825E-04
8 - 9	5.897E-03	.00	5.148E-03	.00	5.635E-04	.00	2.068E-03	.00	1.870E-04	.00	3.587E-04	3.802E-04	3.587E-04	3.802E-04
9 - 10	2.113E-03	.00	2.245E-03	.00	2.076E-04	.00	5.456E-04	.00	1.116E-04	.00	3.468E-04	3.676E-04	3.468E-04	3.676E-04
10 - 11	6.318E-04	.00	7.818E-04	.00	1.097E-04	.00	2.051E-04	.00	6.416E-05	.00	3.316E-04	3.515E-04	3.316E-04	3.515E-04
11 - 12	1.720E-04	.00	1.930E-04	.00	8.373E-05	.00	1.117E-04	.00	3.780E-05	.00	3.289E-04	3.487E-04	3.289E-04	3.487E-04
12 - 13	4.480E-05	.00	4.321E-05	.00	3.863E-05	.00	4.431E-05	.00	2.228E-05	.00	3.240E-04	3.434E-04	3.240E-04	3.434E-04
13 - 14	1.375E-05	.00	1.394E-05	.00	1.285E-05	.00	1.490E-05	.00	1.194E-05	.00	3.079E-04	3.264E-04	3.079E-04	3.264E-04
14 - 15	7.000E-06	.00	7.627E-06	.00	7.016E-06	.00	8.209E-06	.00	6.553E-06	.00	2.954E-04	3.132E-04	2.954E-04	3.132E-04
15 - 16	4.415E-06	.00	5.187E-06	.00	4.760E-06	.00	5.636E-06	.00	4.455E-06	.00	2.792E-04	2.960E-04	2.792E-04	2.960E-04
16 - 17	3.063E-06	.00	3.808E-06	.00	3.473E-06	.00	4.172E-06	.00	3.246E-06	.00	2.706E-04	2.869E-04	2.706E-04	2.869E-04
17 - 18	2.307E-06	.00	2.884E-06	.00	2.611E-06	.00	3.175E-06	.00	2.437E-06	.00	2.647E-04	2.806E-04	2.647E-04	2.806E-04
18 - 19	1.883E-06	.00	2.314E-06	.00	2.066E-06	.00	2.546E-06	.00	1.926E-06	0.00	2.393E-04	2.536E-04	2.393E-04	2.536E-04
19 - 20	1.579E-06	0.00	1.909E-06	0.00	1.676E-06	0.00	2.082E-06	0.00	1.552E-06	0.00	1.886E-04	2.000E-04	1.886E-04	2.000E-04
20 - 21	1.426E-06	0.00	1.688E-06	0.00	1.459E-06	0.00	1.824E-06	0.00	1.340E-06	0.00	1.376E-04	1.459E-04	1.376E-04	1.459E-04
21 - 22	1.357E-06	0.00	1.566E-06	0.00	1.330E-06	0.00	1.677E-06	0.00	1.214E-06	0.00	1.016E-04	1.077E-04	1.016E-04	1.077E-04
22 - 23	1.229E-06	0.00	1.403E-06	0.00	1.153E-06	0.00	1.476E-06	0.00	1.052E-06	0.00	7.703E-05	8.166E-05	7.703E-05	8.166E-05
23 - 24	1.172E-06	0.00	1.334E-06	0.00	1.080E-06	0.00	1.388E-06	0.00	0.	0.00	5.995E-05	6.356E-05	5.995E-05	6.356E-05
24 - 25	1.149E-06	0.00	1.294E-06	0.00	1.028E-06	0.00	1.362E-06	0.00	0.	0.00	4.893E-05	5.187E-05	4.893E-05	5.187E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.611E-05	2.768E-05	2.611E-05	2.768E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.455E-06	7.903E-06	7.455E-06	7.903E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.962E-06	2.080E-06	1.962E-06	2.080E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.058197 MICROMETERS

FREQUENCY = 3269.900 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.732E+00	.00	1.243E+00	.00	2.854E-01	.00	7.832E-01	.00	9.137E-02	.00	1.709E-02	1.812E-02	8.328E-02	8.831E-02
0 - 1	1.355E+00	.00	9.645E-01	.00	2.285E-01	.00	6.038E-01	.00	8.701E-02	.00	1.166E-02	1.237E-02	5.251E-02	5.568E-02
1 - 2	8.398E-01	.00	5.586E-01	.00	1.451E-01	.00	3.621E-01	.00	6.901E-02	.00	5.090E-03	5.398E-03	1.689E-02	1.791E-02
2 - 3	4.564E-01	.00	2.971E-01	.00	8.972E-02	.00	2.155E-01	.00	4.615E-02	.00	2.172E-03	2.303E-03	5.857E-03	6.222E-03
3 - 4	1.985E-01	.00	1.492E-01	.00	4.850E-02	.00	1.218E-01	.00	2.718E-02	.00	1.009E-03	1.070E-03	2.553E-03	2.718E-03
4 - 5	9.757E-02	.00	7.330E-02	.00	2.406E-02	.00	6.605E-02	.00	1.313E-02	.00	6.280E-04	6.660E-04	9.351E-04	9.927E-04
5 - 6	5.435E-02	.00	3.679E-02	.00	1.206E-02	.00	3.314E-02	.00	5.660E-03	.00	4.587E-04	4.864E-04	4.587E-04	4.864E-04
6 - 7	2.717E-02	.00	1.996E-02	.00	5.169E-03	.00	1.586E-02	.00	2.584E-03	.00	3.695E-04	3.919E-04	3.695E-04	3.919E-04
7 - 8	1.312E-02	.00	1.049E-02	.00	1.841E-03	.00	6.993E-03	.00	8.386E-04	.00	3.616E-04	3.834E-04	3.616E-04	3.834E-04
8 - 9	5.963E-03	.00	5.353E-03	.00	7.232E-04	.00	2.437E-03	.00	2.683E-04	.00	3.594E-04	3.811E-04	3.594E-04	3.811E-04
9 - 10	2.426E-03	.00	2.656E-03	.00	2.995E-04	.00	7.325E-04	.00	1.729E-04	.00	3.475E-04	3.685E-04	3.475E-04	3.685E-04
10 - 11	8.303E-04	.00	1.051E-03	.00	1.734E-04	.00	3.026E-04	.00	1.059E-04	.00	3.323E-04	3.523E-04	3.323E-04	3.523E-04
11 - 12	2.564E-04	.00	2.941E-04	.00	1.411E-04	.00	1.747E-04	.00	6.623E-05	.00	3.296E-04	3.495E-04	3.296E-04	3.495E-04
12 - 13	7.535E-05	.00	7.415E-05	.00	6.913E-05	.00	7.314E-05	.00	4.118E-05	.00	3.246E-04	3.442E-04	3.246E-04	3.442E-04
13 - 14	2.599E-05	.00	2.592E-05	.00	2.426E-05	.00	2.581E-05	.00	2.310E-05	.00	3.085E-04	3.272E-04	3.085E-04	3.272E-04
14 - 15	1.462E-05	.00	1.489E-05	.00	1.387E-05	.00	1.483E-05	.00	1.318E-05	.00	2.960E-04	3.139E-04	2.960E-04	3.139E-04
15 - 16	1.009E-05	.00	1.054E-05	.00	9.784E-06	.00	1.054E-05	.00	9.275E-06	.00	2.798E-04	2.967E-04	2.798E-04	2.967E-04
16 - 17	7.465E-06	.00	7.986E-06	.00	7.372E-06	.00	8.020E-06	.00	6.967E-06	.00	2.712E-04	2.876E-04	2.712E-04	2.876E-04
17 - 18	5.759E-06	.00	6.201E-06	.00	5.690E-06	.00	6.240E-06	.00	5.363E-06	.00	2.652E-04	2.813E-04	2.652E-04	2.813E-04
18 - 19	4.685E-06	.00	5.049E-06	.00	4.600E-06	.00	5.090E-06	.00	4.327E-06	0.00	2.397E-04	2.542E-04	2.397E-04	2.542E-04
19 - 20	3.878E-06	0.00	4.185E-06	0.00	3.787E-06	0.00	4.218E-06	0.00	3.548E-06	0.00	1.890E-04	2.004E-04	1.890E-04	2.004E-04
20 - 21	3.430E-06	0.00	3.704E-06	0.00	3.328E-06	0.00	3.733E-06	0.00	3.107E-06	0.00	1.379E-04	1.462E-04	1.379E-04	1.462E-04
21 - 22	3.177E-06	0.00	3.429E-06	0.00	3.056E-06	0.00	3.459E-06	0.00	2.846E-06	0.00	1.018E-04	1.079E-04	1.018E-04	1.079E-04
22 - 23	2.812E-06	0.00	3.042E-06	0.00	2.685E-06	0.00	3.063E-06	0.00	2.491E-06	0.00	7.719E-05	8.185E-05	7.719E-05	8.185E-05
23 - 24	2.638E-06	0.00	2.858E-06	0.00	2.502E-06	0.00	2.876E-06	0.00	2.310E-06	0.00	6.007E-05	6.370E-05	6.007E-05	6.370E-05
24 - 25	2.542E-06	0.00	2.752E-06	0.00	2.389E-06	0.00	2.781E-06	0.00	2.198E-06	0.00	4.903E-05	5.199E-05	4.903E-05	5.199E-05
25 - 30	1.386E-06	0.00	1.503E-06	0.00	1.266E-06	0.00	1.521E-06	0.00	1.164E-06	0.00	2.616E-05	2.775E-05	2.616E-05	2.775E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.470E-06	7.922E-06	7.470E-06	7.922E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.966E-06	2.085E-06	1.966E-06	2.085E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.048186 MICROMETERS

FREQUENCY = 3280.640 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.752E+00	.00	4.225E+00	.00	1.864E+00	.00	2.744E+00	.00	3.674E-01	.00	1.714E-02	1.819E-02	8.352E-02	8.861E-02
0 - 1	4.664E+00	.00	3.387E+00	.00	8.802E-01	.00	2.191E+00	.00	3.565E-01	.00	1.170E-02	1.241E-02	5.266E-02	5.587E-02
1 - 2	3.095E+00	.00	2.090E+00	.00	5.943E-01	.00	1.407E+00	.00	2.963E-01	.00	5.105E-03	.416E-03	1.694E-02	1.797E-02
2 - 3	1.782E+00	.00	1.180E+00	.00	3.871E-01	.00	8.893E-01	.00	2.083E-01	.00	2.178E-03	2.311E-03	5.885E-03	6.243E-03
3 - 4	8.153E-01	.00	6.250E-01	.00	2.193E-01	.00	5.275E-01	.00	1.281E-01	.00	1.012E-03	1.073E-03	2.571E-03	2.727E-03
4 - 5	4.201E-01	.00	3.203E-01	.00	1.134E-01	.00	2.976E-01	.00	6.428E-02	.00	6.299E-04	6.682E-04	9.389E-04	9.961E-04
5 - 6	2.422E-01	.00	1.659E-01	.00	5.842E-02	.00	1.541E-01	.00	2.850E-02	.00	4.601E-04	4.881E-04	4.601E-04	4.881E-04
6 - 7	1.239E-01	.00	9.190E-02	.00	2.541E-02	.00	7.536E-02	.00	1.328E-02	.00	3.706E-04	3.932E-04	3.706E-04	3.932E-04
7 - 8	6.063E-02	.00	4.878E-02	.00	9.267E-03	.00	3.355E-02	.00	4.286E-03	.00	3.626E-04	3.847E-04	3.626E-04	3.847E-04
8 - 9	2.758E-02	.00	2.498E-02	.00	3.530E-03	.00	1.167E-02	.00	1.345E-03	.00	3.604E-04	3.824E-04	3.604E-04	3.824E-04
9 - 10	1.115E-02	.00	1.224E-02	.00	1.435E-03	.00	3.468E-03	.00	8.328E-04	.00	3.485E-04	3.698E-04	3.485E-04	3.698E-04
10 - 11	3.761E-03	.00	4.766E-03	.00	8.009E-04	.00	1.387E-03	.00	4.839E-04	.00	3.332E-04	3.535E-04	3.332E-04	3.535E-04
11 - 12	1.137E-03	.00	1.385E-03	.00	6.211E-04	.00	7.627E-04	.00	2.876E-04	.00	3.306E-04	3.507E-04	3.306E-04	3.507E-04
12 - 13	3.262E-04	.00	3.211E-04	.00	2.904E-04	.00	3.049E-04	.00	1.706E-04	.00	3.256E-04	3.454E-04	3.256E-04	3.454E-04
13 - 14	1.100E-04	.00	1.082E-04	.00	9.773E-05	.00	1.031E-04	.00	9.182E-05	.00	3.094E-04	3.283E-04	3.094E-04	3.283E-04
14 - 15	6.064E-05	.00	5.953E-05	.00	5.392E-05	.00	5.705E-05	.00	5.059E-05	.00	2.969E-04	3.149E-04	2.969E-04	3.149E-04
15 - 16	4.111E-05	.00	4.064E-05	.00	3.692E-05	.00	3.930E-05	.00	3.462E-05	.00	2.806E-04	2.977E-04	2.806E-04	2.977E-04
16 - 17	2.989E-05	.00	2.991E-05	.00	2.717E-05	.00	2.916E-05	.00	2.546E-05	.00	2.720E-04	2.886E-04	2.720E-04	2.886E-04
17 - 18	2.235E-05	.00	2.270E-05	.00	2.059E-05	.00	2.223E-05	.00	1.928E-05	.00	2.660E-04	2.822E-04	2.660E-04	2.822E-04
18 - 19	1.756E-05	.00	1.813E-05	.00	1.641E-05	.00	1.785E-05	.00	1.537E-05	0.00	2.404E-04	2.551E-04	2.404E-04	2.551E-04
19 - 20	1.414E-05	.00	1.478E-05	0.00	1.336E-05	0.00	1.461E-05	0.00	1.258E-05	0.00	1.896E-04	2.011E-04	1.896E-04	2.011E-04
20 - 21	1.223E-05	0.00	1.292E-05	0.00	1.164E-05	0.00	1.281E-05	0.00	1.087E-05	0.00	1.383E-04	1.467E-04	1.383E-04	1.467E-04
21 - 22	1.112E-05	0.00	1.184E-05	0.00	1.062E-05	0.00	1.179E-05	0.00	9.917E-06	0.00	1.021E-04	1.083E-04	1.021E-04	1.083E-04
22 - 23	9.719E-06	0.00	1.041E-05	0.00	9.286E-06	0.00	1.038E-05	0.00	8.657E-06	0.00	7.742E-05	8.213E-05	7.742E-05	8.213E-05
23 - 24	9.038E-06	0.00	9.702E-06	0.00	8.624E-06	0.00	9.697E-06	0.00	8.013E-06	0.00	6.025E-05	6.392E-05	6.025E-05	6.392E-05
24 - 25	8.643E-06	0.00	9.292E-06	0.00	8.212E-06	0.00	9.318E-06	0.00	7.61 -06	0.00	4.917E-05	5.217E-05	4.917E-05	5.217E-05
25 - 30	4.625E-06	0.00	4.990E-06	0.00	4.322E-06	0.00	5.027E-06	0.00	4.081E-06	0.00	2.624E-05	2.784E-05	2.624E-05	2.784E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.032E-06	0.00	0.	0.00	7.492E-06	7.949E-06	7.492E-06	7.949E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.972E-06	2.092E-06	1.972E-06	2.092E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.046124 MICROMETERS

FREQUENCY = 3282.860 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.471E+01	.00	1.797E+01	.00	4.314E+00	.00	1.153E+01	.00	1.433E+00	.00	1.715E-02	1.820E-02	8.357E-02	8.867E-02
0 - 1	2.023E+01	.00	1.458E+01	.00	3.635E+00	.00	9.321E+00	.00	1.432E+00	.00	1.171E-02	1.242E-02	5.259E-02	5.591E-02
1 - 2	1.367E+01	.00	9.193E+00	.00	2.537E+00	.00	6.126E+00	.00	1.246E+00	.00	5.108E-03	5.420E-03	1.695E-02	1.798E-02
2 - 3	8.004E+00	.00	5.283E+00	.00	1.698E+00	.00	3.951E+00	.00	9.045E-01	.00	2.179E-03	2.312E-03	5.888E-03	6.247E-03
3 - 4	3.715E+00	.00	2.840E+00	.00	9.828E-01	.00	2.386E+00	.00	5.698E-01	.00	1.012E-03	1.074E-03	2.572E-03	2.729E-03
4 - 5	1.936E+00	.00	1.474E+00	.00	5.162E-01	.00	1.365E+00	.00	2.910E-01	.00	6.302E-04	6.687E-04	9.394E-04	9.968E-04
5 - 6	1.127E+00	.00	7.718E-01	.00	2.695E-01	.00	7.153E-01	.00	1.308E-01	.00	4.603E-04	4.884E-04	4.603E-04	4.884E-04
6 - 7	5.820E-01	.00	4.314E-01	.00	1.185E-01	.00	3.529E-01	.00	6.117E-02	.00	3.709E-04	3.935E-04	3.709E-04	3.935E-04
7 - 8	2.868E-01	.00	2.307E-01	.00	4.357E-02	.00	1.583E-01	.00	2.000E-02	.00	3.629E-04	3.850E-04	3.629E-04	3.850E-04
8 - 9	1.313E-01	.00	1.185E-01	.00	1.670E-02	.00	5.536E-02	.00	6.321E-03	.00	3.607E-04	3.827E-04	3.607E-04	3.827E-04
9 - 10	5.328E-02	.00	5.850E-02	.00	6.812E-03	.00	1.651E-02	.00	3.940E-03	.00	3.487E-04	3.706E-04	3.497E-04	3.700E-04
10 - 11	1.804E-02	.00	2.285E-02	.00	3.820E-03	.00	6.634E-03	.00	2.310E-03	.00	3.334E-04	3.538E-04	3.334E-04	3.539E-04
11 - 12	5.465E-03	.00	6.266E-03	.00	2.978E-03	.00	3.670E-03	.00	1.381E-03	.00	3.308E-04	3.509E-04	3.308E-04	3.509E-04
12 - 13	1.570E-03	.00	1.543E-03	.00	1.399E-03	.00	1.474E-03	.00	8.225E-04	.00	3.258E-04	3.456E-04	3.258E-04	3.456E-04
13 - 14	5.291E-04	.00	5.221E-04	.00	4.732E-04	.00	5.015E-04	.00	4.446E-04	.00	3.096E-04	3.285E-04	3.096E-04	3.285E-04
14 - 15	2.905E-04	.00	2.886E-04	.00	2.620E-04	.00	2.787E-04	.00	2.458E-04	.00	2.970E-04	3.152E-04	2.970E-04	3.152E-04
15 - 16	1.953E-04	.00	1.975E-04	.00	1.797E-04	.00	1.923E-04	.00	1.685E-04	.00	2.808E-04	2.979E-04	2.808E-04	2.979E-04
16 - 17	1.409E-04	.00	1.456E-04	.00	1.323E-04	.00	1.429E-04	.00	1.240E-04	.00	2.722E-04	2.888E-04	2.722E-04	2.888E-04
17 - 18	1.057E-04	.00	1.106E-04	.00	1.003E-04	.00	1.090E-04	.00	9.390E-05	.00	2.662E-04	2.824E-04	2.662E-04	2.824E-04
18 - 19	8.384E-05	.00	8.839E-05	.00	7.992E-05	.00	8.754E-05	.00	7.481E-05	0.00	2.406E-04	2.553E-04	2.406E-04	2.553E-04
19 - 20	6.797E-05	.00	7.213E-05	0.00	6.504E-05	0.00	7.165E-05	0.00	6.077E-05	0.00	1.897E-04	2.013E-04	1.897E-04	2.013E-04
20 - 21	5.912E-05	0.00	6.304E-05	0.00	5.663E-05	0.00	6.277E-05	0.00	5.283E-05	0.00	1.384E-04	1.468E-04	1.384E-04	1.468E-04
21 - 22	5.397E-05	0.00	5.778E-05	0.00	5.164E-05	0.00	5.772E-05	0.00	4.812E-05	0.00	1.021E-04	1.084E-04	1.021E-04	1.084E-04
22 - 23	4.727E-05	0.00	5.081E-05	0.00	4.513E-05	0.00	5.080E-05	0.00	4.196E-05	0.00	7.746E-05	8.219E-05	7.746E-05	8.219E-05
23 - 24	4.401E-05	0.00	4.740E-05	0.00	4.189E-05	0.00	4.744E-05	0.00	3.880E-05	0.00	6.029E-05	6.397E-05	6.029E-05	6.397E-05
24 - 25	4.212E-05	0.00	4.539E-05	0.00	3.987E-05	0.00	4.559E-05	0.00	3.685E-05	0.00	4.920E-05	5.221E-05	4.920E-05	5.221E-05
25 - 30	2.261E-05	0.00	2.443E-05	0.00	2.100E-05	0.00	2.462E-05	0.00	1.939E-05	0.00	2.626E-05	2.786E-05	2.626E-05	2.785E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	5.062E-06	0.00	0.	0.00	7.497E-06	7.954E-06	7.497E-06	7.954E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.973E-06	2.093E-06	1.973E-06	2.093E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.006425 MICROMETERS

FREQUENCY = 3326.210 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.067E+01	.00	7.605E+00	.00	1.686E+00	.00	4.749E+00	.00	5.215E-01	.00	1.735E-02	1.845E-02	8.456E-02	8.988E-02
0 - 1	8.342E+00	.00	5.902E+00	.00	1.349E+00	.00	3.656E+00	.00	4.995E-01	.00	1.184E-02	1.259E-02	5.332E-02	5.667E-02
1 - 2	5.134E+00	.00	3.399E+00	.00	8.512E-01	.00	2.174E+00	.00	3.957E-01	.00	5.168E-03	5.494E-03	1.715E-02	1.823E-02
2 - 3	2.756E+00	.00	1.782E+00	.00	5.185E-01	.00	1.273E+00	.00	2.603E-01	.00	2.205E-03	2.344E-03	5.958E-03	6.333E-03
3 - 4	1.174E+00	.00	8.752E-01	.00	2.730E-01	.00	7.023E-01	.00	1.491E-01	.00	1.024E-03	1.089E-03	2.603E-03	2.766E-03
4 - 5	5.595E-01	.00	4.168E-01	.00	1.303E-01	.00	3.683E-01	.00	6.896E-02	.00	6.377E-04	6.778E-04	9.506E-04	1.010E-03
5 - 6	2.997E-01	.00	2.011E-01	.00	6.217E-02	.00	1.766E-01	.00	2.807E-02	.00	4.658E-04	4.951E-04	4.658E-04	4.951E-04
6 - 7	1.428E-01	.00	1.039E-01	.00	2.512E-02	.00	7.984E-02	.00	1.197E-02	.00	3.753E-04	3.989E-04	3.753E-04	3.989E-04
7 - 8	6.490E-02	.00	5.143E-02	.00	8.547E-03	.00	3.294E-02	.00	3.605E-03	.00	3.672E-04	3.903E-04	3.672E-04	3.903E-04
8 - 9	2.760E-02	.00	2.453E-02	.00	3.056E-03	.00	1.064E-02	.00	1.084E-03	.00	3.649E-04	3.879E-04	3.649E-04	3.879E-04
9 - 10	1.046E-02	.00	1.128E-02	.00	1.173E-03	.00	2.952E-03	.00	6.551E-04	.00	3.529E-04	3.751E-04	3.529E-04	3.751E-04
10 - 11	3.305E-03	.00	4.122E-03	.00	6.349E-04	.00	1.142E-03	.00	3.814E-04	.00	3.374E-04	3.586E-04	3.374E-04	3.586E-04
11 - 12	9.479E-04	.00	1.069E-03	.00	4.843E-04	.00	6.269E-04	.00	2.278E-04	.00	3.347E-04	3.557E-04	3.347E-04	3.557E-04
12 - 13	2.652E-04	.00	2.569E-04	.00	2.287E-04	.00	2.546E-04	.00	1.363E-04	.00	3.296E-04	3.504E-04	3.296E-04	3.504E-04
13 - 14	9.011E-05	.00	9.030E-05	.00	8.169E-05	.00	9.152E-05	.00	7.564E-05	.00	3.133E-04	3.330E-04	3.133E-04	3.330E-04
14 - 15	4.974E-05	.00	5.194E-05	.00	4.642E-05	.00	5.233E-05	.00	4.297E-05	.00	3.006E-04	3.195E-04	3.006E-04	3.195E-04
15 - 16	3.241E-05	.00	3.558E-05	.00	3.188E-05	.00	3.607E-05	.00	2.956E-05	.00	2.841E-04	3.020E-04	2.841E-04	3.020E-04
16 - 17	2.236E-05	.00	2.603E-05	.00	2.331E-05	.00	2.689E-05	.00	2.159E-05	.00	2.754E-04	2.927E-04	2.754E-04	2.927E-04
17 - 18	1.671E-05	.00	1.963E-05	.00	1.752E-05	.00	2.034E-05	.00	1.616E-05	.00	2.693E-04	2.863E-04	2.693E-04	2.863E-04
18 - 19	1.327E-05	.00	1.546E-05	.00	1.368E-05	.00	1.610E-05	.00	1.267E-05	.00	2.434E-04	2.588E-04	2.434E-04	2.588E-04
19 - 20	1.077E-05	.00	1.248E-05	.00	1.091E-05	0.00	1.301E-05	.00	1.007E-05	0.00	1.919E-04	2.040E-04	1.919E-04	2.040E-04
20 - 21	9.366E-06	0.00	1.071E-05	0.00	9.310E-06	0.00	1.113E-05	0.00	8.540E-06	0.00	1.400E-04	1.488E-04	1.400E-04	1.488E-04
21 - 22	8.563E-06	0.00	9.667E-06	0.00	8.289E-06	0.00	1.004E-05	0.00	7.561E-06	0.00	1.033E-04	1.098E-04	1.033E-04	1.098E-04
22 - 23	7.532E-06	0.00	8.443E-06	0.00	7.125E-06	0.00	8.704E-06	0.00	6.452E-06	0.00	7.838E-05	8.331E-05	7.838E-05	8.331E-05
23 - 24	6.997E-06	0.00	7.851E-06	0.00	6.498E-06	0.00	8.017E-06	0.00	5.854E-06	0.00	6.100E-05	6.484E-05	6.100E-05	6.484E-05
24 - 25	6.708E-06	0.00	7.448E-06	0.00	6.101E-06	0.00	7.688E-06	0.00	5.435E-06	0.00	4.979E-05	5.292E-05	4.979E-05	5.292E-05
25 - 30	3.758E-06	0.00	4.151E-06	0.00	3.206E-06	0.00	4.266E-06	0.00	2.885E-06	0.00	2.657E-05	2.824E-05	2.657E-05	2.824E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.586E-06	8.063E-06	7.586E-06	8.063E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.996E-06	2.122E-06	1.996E-06	2.122E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.005051 MICROMETERS

FREQUENCY = 3327.730 WAVENUMBERS

HT(KM)	TROPICAL $k_m(km^{-1})$	TROPICAL $\sigma_m(km^{-1})$	MIDLATITUDE SUMMER $k_m(km^{-1})$	MIDLATITUDE SUMMER $\sigma_m(km^{-1})$	MIDLATITUDE WINTER $k_m(km^{-1})$	MIDLATITUDE WINTER $\sigma_m(km^{-1})$	SUBARCTIC SUMMER $k_m(km^{-1})$	SUBARCTIC SUMMER $\sigma_m(km^{-1})$	SUBARCTIC WINTER $k_m(km^{-1})$	SUBARCTIC WINTER $\sigma_m(km^{-1})$	AEROSOL CLEAR $k_a(km^{-1})$	AEROSOL CLEAR $\sigma_a(km^{-1})$	AEROSOL HAZY $k_a(km^{-1})$	AEROSOL HAZY $\sigma_a(km^{-1})$
0	9.072E+00	.00	6.309E+00	.00	1.266E+00	.00	3.826E+00	.00	3.618E-01	.00	1.736E-02	1.845E-02	8.460E-02	8.993E-02
0 - 1	7.064E+00	.00	4.897E+00	.00	1.014E+00	.00	2.938E+00	.00	3.519E-01	.00	1.185E-02	1.260E-02	5.334E-02	5.670E-02
1 - 2	4.307E+00	.00	2.810E+00	.00	6.390E-01	.00	1.731E+00	.00	2.827E-01	.00	5.171E-03	5.496E-03	1.716E-02	1.824E-02
2 - 3	2.293E+00	.00	1.457E+00	.00	3.877E-01	.00	1.001E+00	.00	1.854E-01	.00	2.206E-03	2.345E-03	5.960E-03	6.336E-03
3 - 4	9.643E-01	.00	7.042E-01	.00	2.914E-01	.00	5.453E-01	.00	1.050E-01	.00	1.025E-03	1.089E-03	2.604E-03	2.768E-03
4 - 5	4.490E-01	.00	3.289E-01	.00	9.390E-02	.00	2.807E-01	.00	4.733E-02	.00	6.380E-04	6.781E-04	9.510E-04	1.011E-03
5 - 6	2.347E-01	.00	1.551E-01	.00	4.360E-02	.00	1.310E-01	.00	1.861E-02	.00	4.660E-04	4.953E-04	4.660E-04	4.953E-04
6 - 7	1.088E-01	.00	7.816E-02	.00	1.709E-02	.00	5.726E-02	.00	7.637E-03	.00	3.754E-04	3.991E-04	3.754E-04	3.991E-04
7 - 8	4.785E-02	.00	3.749E-02	.00	5.631E-03	.00	2.276E-02	.00	2.218E-03	.00	3.673E-04	3.905E-04	3.673E-04	3.905E-04
8 - 9	1.967E-02	.00	1.727E-02	.00	1.949E-03	.00	7.064E-03	.00	6.565E-04	.00	3.651E-04	3.881E-04	3.651E-04	3.881E-04
9 - 10	7.188E-03	.00	7.655E-03	.00	7.262E-04	.00	1.882E-03	.00	3.958E-04	.00	3.530E-04	3.752E-04	3.530E-04	3.752E-04
10 - 11	2.181E-03	.00	2.690E-03	.00	3.883E-04	.00	7.173E-04	.00	2.332E-04	.00	3.375E-04	3.588E-04	3.375E-04	3.588E-04
11 - 12	6.048E-04	.00	6.737E-04	.00	2.952E-04	.00	3.970E-04	.00	1.409E-04	.00	3.348E-04	3.559E-04	3.348E-04	3.559E-04
12 - 13	1.670E-04	.00	1.600E-04	.00	1.414E-04	.00	1.641E-04	.00	8.535E-05	.00	3.298E-04	3.505E-04	3.298E-04	3.505E-04
13 - 14	5.748E-05	.00	5.826E-05	.00	5.290E-05	.00	6.156E-05	.00	4.859E-05	.00	3.134E-04	3.332E-04	3.134E-04	3.332E-04
14 - 15	3.220E-05	.00	3.463E-05	.00	3.073E-05	.00	3.597E-05	.00	2.825E-05	.00	3.007E-04	3.196E-04	3.007E-04	3.196E-04
15 - 16	2.082E-05	.00	2.38 .E-05	.00	2.120E-05	.00	2.487E-05	.00	1.954E-05	.00	2.842E-04	3.021E-04	2.842E-04	3.021E-04
16 - 17	1.410E-05	.00	1.741E-05	.00	1.547E-05	.00	1.861E-05	.00	1.423E-05	.00	2.755E-04	2.929E-04	2.755E-04	2.929E-04
17 - 18	1.050E-05	.00	1.310E-05	.00	1.159E-05	.00	1.403E-05	.00	1.059E-05	.00	2.694E-04	2.864E-04	2.694E-04	2.864E-04
18 - 19	8.298E-06	.00	1.024E-05	.00	8.938E-06	.00	1.104E-05	.00	8.219E-06	.00	2.435E-04	2.589E-04	2.435E-04	2.589E-04
19 - 20	6.705E-06	.00	8.222E-06	.00	7.036E-06	0.00	8.863E-06	.00	6.442E-06	0.00	1.920E-04	2.041E-04	1.920E-04	2.041E-04
20 - 21	5.815E-06	0.00	6.976E-06	0.00	5.926E-06	0.00	7.483E-06	0.00	5.372E-06	0.00	1.401E-04	1.489E-04	1.401E-04	1.489E-04
21 - 22	5.315E-06	0.00	6.375E-06	0.00	5.188E-06	0.00	6.666E-06	0.00	4.659E-06	0.00	1.034E-04	1.099E-04	1.034E-04	1.099E-04
22 - 23	4.889E-06	0.00	5.426E-06	0.00	4.406E-06	0.00	5.729E-06	0.00	3.911E-06	0.00	7.841E-05	8.335E-05	7.841E-05	8.335E-05
23 - 24	4.352E-06	0.00	5.042E-06	0.00	3.964E-06	0.00	5.232E-06	0.00	3.495E-06	0.00	6.103E-05	6.487E-05	6.103E-05	6.487E-05
24 - 25	4.182E-06	0.00	4.757E-06	0.00	3.683E-06	0.00	5.020E-06	0.00	3.184E-06	0.00	4.981E-05	5.294E-05	4.981E-05	5.294E-05
25 - 30	2.429E-06	0.00	2.732E-06	0.00	1.933E-06	0.00	2.853E-06	0.00	1.703E-06	0.00	2.658E-05	2.825E-05	2.658E-05	2.825E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.589E-06	8.067E-06	7.589E-06	8.067E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.997E-06	2.123E-06	1.997E-06	2.123E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.998905 MICROMETERS

FREQUENCY = 3334.550 WAVENUMBERS

		TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
HT(KM)		$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0		3.390E+01	.00	1.636E+01	.00	3.071E+00	.00	9.742E+00	.00	8.319E-01	.00	1.739E-02	1.849E-02	8.475E-02	9.012E-02
0 -	1	1.875E+01	.00	1.286E+01	.00	2.495E+00	.00	7.566E+00	.00	8.303E-01	.00	1.187E-02	1.262E-02	5.344E-02	5.682E-02
1 -	2	1.164E+01	.00	7.532E+00	.00	1.615E+00	.00	4.542E+00	.00	6.933E-01	.00	5.180E-03	5.508E-03	1.719E-02	1.828E-02
2 -	3	6.298E+00	.00	3.965E+00	.00	1.001E+00	.00	2.666E+00	.00	4.652E-01	.00	2.210E-03	2.350E-03	5.971E-03	6.349E-03
3 -	4	2.677E+00	.00	1.934E+00	.00	5.267E-01	.00	1.470E+00	.00	2.672E-01	.00	1.026E-03	1.091E-03	2.608E-03	2.774E-03
4 -	5	1.250E+00	.00	9.078E-01	.00	2.463E-01	.00	7.611E-01	.00	1.207E-01	.00	6.391E-04	6.796E-04	9.527E-04	1.013E-03
5 -	6	6.539E-01	.00	4.287E-01	.00	1.142E-01	.00	3.547E-01	.00	4.704E-02	.00	4.668E-04	4.964E-04	4.668E-04	4.964E-04
6 -	7	3.021E-01	.00	2.155E-01	.00	4.441E-02	.00	1.538E-01	.00	1.899E-02	.00	3.761E-04	3.999E-04	3.761E-04	3.999E-04
7 -	8	1.316E-01	.00	1.025E-01	.00	1.440E-02	.00	6.033E-02	.00	5.335E-03	.00	3.680E-04	3.913E-04	3.680E-04	3.913E-04
8 -	9	5.347E-02	.00	4.664E-02	.00	4.847E-03	.00	1.836E-02	.00	1.493E-03	.00	3.657E-04	3.889E-04	3.657E-04	3.889E-04
9 -	10	1.919E-02	.00	2.031E-02	.00	1.730E-03	.00	4.730E-03	.00	8.858E-04	.00	3.537E-04	3.760E-04	3.537E-04	3.760E-04
10 -	11	5.659E-03	.00	6.959E-03	.00	8.963E-04	.00	1.754E-03	.00	5.141E-04	.00	3.381E-04	3.595E-04	3.381E-04	3.595E-04
11 -	12	1.497E-03	.00	1.665E-03	.00	6.860E-04	.00	9.620E-04	.00	3.050E-04	.00	3.354E-04	3.567E-04	3.354E-04	3.567E-04
12 -	13	3.729E-04	.00	3.548E-04	.00	3.167E-04	.00	3.838E-04	.00	1.807E-04	.00	3.304E-04	3.513E-04	3.304E-04	3.513E-04
13 -	14	1.069E-04	.00	1.115E-04	.00	1.052E-04	.00	1.296E-04	.00	9.714E-05	.00	3.140E-04	3.339E-04	3.140E-04	3.339E-04
14 -	15	5.009E-05	.00	6.127E-05	.00	5.734E-05	.00	7.161E-05	.00	5.348E-05	.00	3.012E-04	3.203E-04	3.012E-04	3.203E-04
15 -	16	2.853E-05	.00	4.179E-05	.00	3.879E-05	.00	4.928E-05	.00	3.632E-05	.00	2.847E-04	3.028E-04	2.847E-04	3.028E-04
16 -	17	1.824E-05	.00	3.074E-05	.00	2.820E-05	.00	3.654E-05	.00	2.633E-05	.00	2.760E-04	2.935E-04	2.760E-04	2.935E-04
17 -	18	1.403E-05	.00	2.331E-05	.00	2.111E-05	.00	2.785E-05	.00	1.966E-05	.00	2.699E-04	2.870E-04	2.699E-04	2.870E-04
18 -	19	1.235E-05	.00	1.883E-05	.00	1.663E-05	.00	2.235E-05	.00	1.545E-05	.00	2.440E-04	2.594E-04	2.440E-04	2.594E-04
19 -	20	1.106E-05	.00	1.571E-05	.00	1.346E-05	0.00	1.828E-05	.00	1.237E-05	0.00	1.924E-04	2.045E-04	1.924E-04	2.045E-04
20 -	21	1.060E-05	0.00	1.403E-05	0.00	1.172E-05	0.00	1.603E-05	0.00	1.061E-05	0.00	1.403E-04	1.492E-04	1.403E-04	1.492E-04
21 -	22	1.063E-05	0.00	1.315E-05	0.00	1.070E-05	0.00	1.475E-05	0.00	9.548E-06	0.00	1.036E-04	1.101E-04	1.036E-04	1.101E-04
22 -	23	9.970E-06	0.00	1.195E-05	0.00	9.350E-06	0.00	1.298E-05	0.00	8.215E-06	0.00	7.856E-05	8.353E-05	7.856E-05	8.353E-05
23 -	24	9.705E-06	0.00	1.151E-05	0.00	8.683E-06	0.00	1.226E-05	0.00	7.494E-06	0.00	6.114E-05	6.501E-05	6.114E-05	6.501E-05
24 -	25	9.705E-06	0.00	1.126E-05	0.00	8.267E-06	0.00	1.215E-05	0.00	7.022E-06	0.00	4.990E-05	5.306E-05	4.990E-05	5.306E-05
25 -	30	5.967E-06	0.00	6.775E-06	0.00	4.463E-06	0.00	7.172E-06	0.00	3.878E-06	0.00	2.663E-05	2.831E-05	2.663E-05	2.831E-05
30 -	35	0.	0.00	0.	0.00	0.	0.00	1.758E-06	0.00	0.	0.00	7.603E-06	8.084E-06	7.603E-06	8.084E-06
35 -	40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.001E-06	2.127E-06	2.001E-06	2.127E-06
40 -	45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 -	50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 -	70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -	100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.		0.	0.

WAVELENGTH = 2.964316 MICROMETERS

FREQUENCY = 3373.460 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.644E-01	.00	2.538E-01	.00	5.373E-02	.00	1.550E-01	.00	1.680E-02	.00	1.756E-02	1.872E-02	8.555E-02	9.122E-02
0 - 1	2.785E-01	.00	1.936E-01	.00	4.244E-02	.00	1.173E-01	.00	1.585E-02	.00	1.198E-02	1.278E-02	5.394E-02	5.752E-02
1 - 2	1.647E-01	.00	1.079E-01	.00	2.617E-02	.00	6.753E-02	.00	1.227E-02	.00	5.229E-03	5.576E-03	1.735E-02	1.850E-02
2 - 3	8.579E-02	.00	5.495E-02	.00	1.568E-02	.00	3.856E-02	.00	7.964E-03	.00	2.231E-03	2.379E-03	6.028E-03	6.427E-03
3 - 4	3.567E-02	.00	2.637E-02	.00	8.192E-03	.00	2.091E-02	.00	4.554E-03	.00	1.036E-03	1.105E-03	2.633E-03	2.808E-03
4 - 5	1.665E-02	.00	1.236E-02	.00	3.927E-03	.00	1.084E-02	.00	2.146E-03	.00	6.452E-04	6.879E-04	9.861E-04	1.025E-03
5 - 6	8.801E-03	.00	5.927E-03	.00	1.905E-03	.00	5.192E-03	.00	9.194E-04	.00	4.713E-04	5.025E-04	4.713E-04	5.025E-04
6 - 7	4.183E-03	.00	3.068E-03	.00	8.076E-04	.00	2.371E-03	.00	4.274E-04	.00	3.797E-04	4.048E-04	3.797E-04	4.048E-04
7 - 8	1.919E-03	.00	1.536E-03	.00	3.074E-04	.00	1.009E-03	.00	1.525E-04	.00	3.715E-04	3.961E-04	3.715E-04	3.961E-04
8 - 9	8.404E-04	.00	7.510E-04	.00	1.321E-04	.00	3.552E-04	.00	6.740E-05	.00	3.692E-04	3.937E-04	3.692E-04	3.937E-04
9 - 10	3.396E-04	.00	3.624E-04	.00	6.366E-05	.00	1.199E-04	.00	4.469E-05	.00	3.570E-04	3.807E-04	3.570E-04	3.807E-04
10 - 11	1.252E-04	.00	1.479E-04	.00	4.013E-05	.00	5.749E-05	.00	2.965E-05	.00	3.413E-04	3.640E-04	3.413E-04	3.640E-04
11 - 12	4.845E-05	.00	5.155E-05	.00	2.970E-05	.00	3.654E-05	.00	2.008E-05	.00	3.386E-04	3.610E-04	3.386E-04	3.610E-04
12 - 13	2.268E-05	.00	2.145E-05	.00	1.797E-05	.00	2.032E-05	.00	1.356E-05	.00	3.335E-04	3.556E-04	3.335E-04	3.556E-04
13 - 14	1.227E-05	.00	1.235E-05	.00	1.067E-05	.00	1.255E-05	.00	9.484E-06	.00	3.170E-04	3.380E-04	3.170E-04	3.380E-04
14 - 15	8.283E-06	.00	8.849E-06	.00	7.279E-06	.00	8.747E-06	.00	6.430E-06	.00	3.041E-04	3.242E-04	3.041E-04	3.242E-04
15 - 16	5.451E-06	.00	6.228E-06	.00	5.202E-06	.00	6.147E-06	.00	4.627E-06	.00	2.874E-04	3.065E-04	2.874E-04	3.065E-04
16 - 17	3.544E-06	.00	4.496E-06	.00	3.788E-06	.00	4.732E-06	.00	3.364E-06	.00	2.786E-04	2.971E-04	2.786E-04	2.971E-04
17 - 18	2.614E-06	.00	3.361E-06	.00	2.812E-06	.00	3.480E-06	.00	2.450E-06	.00	2.725E-04	2.905E-04	2.725E-04	2.905E-04
18 - 19	1.990E-06	.00	2.469E-06	.00	2.044E-06	.00	2.597E-06	.00	1.821E-06	.00	2.463E-04	2.626E-04	2.463E-04	2.626E-04
19 - 20	1.508E-06	.00	1.861E-06	.00	1.497E-06	.00	1.973E-06	.00	1.332E-06	0.00	1.942E-04	2.071E-04	1.942E-04	2.071E-04
20 - 21	1.184E-06	0.00	1.410E-06	0.00	1.152E-06	0.00	1.473E-06	0.00	1.012E-06	0.00	1.417E-04	1.511E-04	1.417E-04	1.511E-04
21 - 22	0.	0.00	1.111E-06	0.00	0.	0.00	1.160E-06	0.00	0.	0.00	1.045E-04	1.115E-04	1.045E-04	1.115E-04
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.930E-05	8.455E-05	7.930E-05	8.455E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.172E-05	6.581E-05	6.172E-05	6.581E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.037E-05	5.371E-05	5.037E-05	5.371E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.688E-05	2.866E-05	2.688E-05	2.866E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.675E-06	8.183E-06	7.675E-06	8.183E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.020E-06	2.154E-06	2.020E-06	2.154E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.957267 MICROMETERS

FREQUENCY = 3381.500 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR			AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	
0	4.956E-01	.00	3.487E-01	.00	7.507E-02	.00	2.149E-01	.00	2.311E-02	.00	1.759E-02	1.877E-02	8.572E-02	9.145E-02	
0 - 1	3.810E-01	.00	2.669E-01	.00	5.930E-02	.00	1.631E-01	.00	2.185E-02	.00	1.201E-02	1.281E-02	5.405E-02	5.766E-02	
1 - 2	2.276E-01	.00	1.496E-01	.00	3.654E-02	.00	9.435E-02	.00	1.692E-02	.00	5.239E-03	5.590E-03	1.739E-02	1.855E-02	
2 - 3	1.193E-01	.00	7.658E-02	.00	2.184E-02	.00	5.402E-02	.00	1.094E-02	.00	2.235E-03	2.385E-03	6.039E-03	6.443E-03	
3 - 4	4.975E-02	.00	3.684E-02	.00	1.133E-02	.00	2.929E-02	.00	6.187E-03	.00	1.038E-03	1.108E-03	2.638E-03	2.815E-03	
4 - 5	2.325E-02	.00	1.725E-02	.00	5.353E-03	.00	1.514E-02	.00	2.844E-03	.00	6.464E-04	6.897E-04	9.636E-04	1.028E-03	
5 - 6	1.228E-02	.00	8.219E-03	.00	2.541E-03	.00	7.187E-03	.00	1.160E-03	.00	4.722E-04	5.037E-04	4.722E-04	5.037E-04	
6 - 7	5.791E-03	.00	4.211E-03	.00	1.028E-03	.00	3.232E-03	.00	4.986E-04	.00	3.804E-04	4.058E-04	3.804E-04	4.058E-04	
7 - 8	2.616E-03	.00	2.074E-03	.00	3.536E-04	.00	1.334E-03	.00	1.540E-04	.00	3.722E-04	3.971E-04	3.722E-04	3.971E-04	
8 - 9	1.112E-03	.00	9.893E-04	.00	1.292E-04	.00	4.354E-04	.00	4.835E-05	.00	3.699E-04	3.947E-04	3.699E-04	3.947E-04	
9 - 10	4.241E-04	.00	4.576E-04	.00	5.115E-05	.00	1.238E-04	.00	2.956E-05	.00	3.577E-04	3.816E-04	3.577E-04	3.816E-04	
10 - 11	1.366E-04	.00	1.696E-04	.00	2.826E-05	.00	4.911E-05	.00	1.749E-05	.00	3.420E-04	3.649E-04	3.420E-04	3.649E-04	
11 - 12	4.071E-05	.00	4.567E-05	.00	2.145E-05	.00	2.742E-05	.00	1.064E-05	.00	3.393E-04	3.619E-04	3.393E-04	3.619E-04	
12 - 13	1.232E-05	.00	1.189E-05	.00	1.048E-05	.00	1.168E-05	.00	6.496E-06	.00	3.341E-04	3.565E-04	3.341E-04	3.565E-04	
13 - 14	4.558E-06	.00	4.589E-06	.00	4.119E-06	.00	4.723E-06	.00	3.774E-06	.00	3.176E-04	3.388E-04	3.176E-04	3.388E-04	
14 - 15	2.592E-06	.00	2.787E-06	.00	2.445E-06	.00	2.859E-06	.00	2.235E-06	.00	3.047E-04	3.250E-04	3.047E-04	3.250E-04	
15 - 16	1.661E-06	.00	1.923E-06	.00	1.694E-06	.00	1.982E-06	.00	1.554E-06	.00	2.880E-04	3.073E-04	2.880E-04	3.073E-04	
16 - 17	1.123E-06	.00	1.401E-06	.00	1.236E-06	.00	1.493E-06	.00	1.132E-06	.00	2.792E-04	2.978E-04	2.792E-04	2.978E-04	
17 - 18	0.	.00	1.053E-06	.00	0.	.00	1.119E-06	.00	0.	.00	2.730E-04	2.913E-04	2.730E-04	2.913E-04	
18 - 19	0.	.00	0.	.00	0.	.00	0.	.00	0.	.00	2.468E-04	2.633E-04	2.468E-04	2.633E-04	
19 - 20	0.	.00	0.	.00	0.	.00	0.	.00	0.	.00	1.946E-04	2.076E-04	1.946E-04	2.076E-04	
20 - 21	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.420E-04	1.514E-04	1.420E-04	1.514E-04	
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.047E-04	1.118E-04	1.047E-04	1.118E-04	
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.945E-05	8.477E-05	7.945E-05	8.477E-05	
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.184E-05	6.597E-05	6.184E-05	6.597E-05	
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.047E-05	5.384E-05	5.047E-05	5.384E-05	
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.693E-05	2.873E-05	2.693E-05	2.873E-05	
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.690E-06	8.204E-06	7.690E-06	8.204E-06	
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.024E-06	2.159E-06	2.024E-06	2.159E-06	
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.	
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.	
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.	
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.	

WAVELENGTH = 2.953913 MICROMETERS

FREQUENCY = 3385.340 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR	AEROSOL	AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.451E+01	.00	1.753E+01	.00	4.000E+00	.00	1.105E+01	.00	1.293E+00	.00	1.761E-02	1.879E-02	8.580E-02	9.155E-02
0 - 1	2.004E+01	.00	1.423E+01	.00	3.337E+00	.00	8.894E+00	.00	1.277E+00	.00	1.202E-02	1.282E-02	5.410E-02	5.773E-02
1 - 2	1.362E+01	.00	9.037E+00	.00	2.310E+00	.00	5.835E+00	.00	1.099E+00	.00	5.244E-03	5.596E-03	1.740E-02	1.857E-02
2 - 3	8.134E+00	.00	5.276E+00	.00	1.561E+00	.00	3.803E+00	.00	8.000E-01	.00	2.238E-03	2.388E-03	6.045E-03	6.451E-03
3 - 4	3.888E+00	.00	2.907E+00	.00	9.210E-01	.00	2.356E+00	.00	5.129E-01	.00	1.039E-03	1.109E-03	2.641E-03	2.818E-03
4 - 5	2.089E+00	.00	1.562E+00	.00	4.963E-01	.00	1.397E+00	.00	2.678E-01	.00	6.470E-04	6.905E-04	9.645E-04	1.029E-03
5 - 6	1.269E+00	.00	8.548E-01	.00	2.690E-01	.00	7.613E-01	.00	1.237E-01	.00	4.726E-04	5.043E-04	4.726E-04	5.043E-04
6 - 7	6.882E-01	.00	5.042E-01	.00	1.209E-01	.00	3.920E-01	.00	5.999E-02	.00	3.807E-04	4.063E-04	3.807E-04	4.063E-04
7 - 8	3.587E-01	.00	2.852E-01	.00	4.809E-02	.00	1.843E-01	.00	2.048E-02	.00	3.725E-04	3.976E-04	3.725E-04	3.976E-04
8 - 9	1.743E-01	.00	1.553E-01	.00	1.955E-02	.00	6.779E-02	.00	6.909E-03	.00	3.703E-04	3.951E-04	3.703E-04	3.951E-04
9 - 10	7.462E-02	.00	8.132E-02	.00	8.464E-03	.00	2.126E-02	.00	4.803E-03	.00	3.580E-04	3.821E-04	3.580E-04	3.821E-04
10 - 11	2.660E-02	.00	3.360E-02	.00	5.204E-03	.00	9.356E-03	.00	3.216E-03	.00	3.423E-04	3.653E-04	3.423E-04	3.653E-04
11 - 12	8.488E-03	.00	9.692E-03	.00	4.601E-03	.00	5.918E-03	.00	2.191E-03	.00	3.396E-04	3.624E-04	3.396E-04	3.624E-04
12 - 13	2.546E-03	.00	2.486E-03	.00	2.435E-03	.00	2.701E-03	.00	1.475E-03	.00	3.344E-04	3.569E-04	3.344E-04	3.569E-04
13 - 14	8.774E-04	.00	9.096E-04	.00	9.162E-04	.00	1.032E-03	.00	8.896E-04	.00	3.179E-04	3.392E-04	3.179E-04	3.392E-04
14 - 15	4.886E-04	.00	5.626E-04	.00	5.567E-04	.00	6.372E-04	.00	5.408E-04	.00	3.050E-04	3.254E-04	3.050E-04	3.254E-04
15 - 16	3.289E-04	.00	4.248E-04	.00	4.132E-04	.00	4.809E-04	.00	3.998E-04	.00	2.883E-04	3.076E-04	2.883E-04	3.076E-04
16 - 17	2.406E-04	.00	3.396E-04	.00	3.245E-04	.00	3.847E-04	.00	3.114E-04	.00	2.794E-04	2.982E-04	2.794E-04	2.982E-04
17 - 18	1.969E-04	.00	2.706E-04	.00	2.587E-04	.00	3.122E-04	.00	2.464E-04	.00	2.733E-04	2.916E-04	2.733E-04	2.916E-04
18 - 19	1.763E-04	.00	2.340E-04	.00	2.143E-04	.00	2.634E-04	.00	2.028E-04	.00	2.470E-04	2.636E-04	2.470E-04	2.636E-04
19 - 20	1.590E-04	.00	2.021E-04	.00	1.801E-04	.00	2.242E-04	.00	1.635E-04	0.00	1.947E-04	2.078E-04	1.947E-04	2.078E-04
20 - 21	1.520E-04	0.00	1.801E-04	0.00	1.612E-04	0.00	2.025E-04	0.00	1.488E-04	0.00	1.421E-04	1.516E-04	1.421E-04	1.516E-04
21 - 22	1.510E-04	0.00	1.765E-04	0.00	1.502E-04	0.00	1.907E-04	0.00	1.370E-04	0.00	1.048E-04	1.119E-04	1.048E-04	1.119E-04
22 - 23	1.407E-04	0.00	1.615E-04	0.00	1.333E-04	0.00	1.709E-04	0.00	1.201E-04	0.00	7.953E-05	8.487E-05	7.953E-05	8.487E-05
23 - 24	1.366E-04	0.00	1.561E-04	0.00	1.252E-04	0.00	1.629E-04	0.00	1.112E-04	0.00	6.189E-05	6.605E-05	6.189E-05	6.605E-05
24 - 25	1.359E-04	0.00	1.532E-04	0.00	1.203E-04	0.00	1.615E-04	0.00	1.055E-04	0.00	5.052E-05	5.391E-05	5.052E-05	5.391E-05
25 - 30	8.097E-05	0.00	9.029E-05	0.00	6.521E-05	0.00	9.407E-05	0.00	5.795E-05	0.00	2.696E-05	2.877E-05	2.696E-05	2.877E-05
30 - 35	5.776E-05	0.00	6.244E-05	0.00	3.887E-05	0.00	2.203E-05	0.00	3.411E-05	0.00	7.697E-06	8.214E-06	7.697E-06	8.214E-06
35 - 40	1.948E-05	0.00	2.128E-05	0.00	1.370E-05	0.00	2.276E-05	0.00	1.111E-05	0.00	2.026E-06	2.162E-06	2.026E-06	2.162E-06
40 - 45	8.932E-06	0.00	9.960E-06	0.00	7.130E-06	0.00	1.084E-05	0.00	5.481E-06	0.00	0.	0.	0.	0.
45 - 50	3.879E-06	0.00	4.378E-06	0.00	3.400E-06	0.00	4.612E-06	0.00	2.734E-06	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.925551 MICROMETERS

FREQUENCY = 3418.160 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL		HAZY
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	7.894E+00	.00	5.727E+00	.00	1.360E+00	.00	3.653E+00	.00	4.422E-01	.00	1.775E-02	1.898E-02	8.648E-02	9.249E-02
0 - 1	6.203E+00	.00	4.455E+00	.00	1.090E+00	.00	2.824E+00	.00	4.205E-01	.00	1.211E-02	1.296E-02	5.452E-02	5.832E-02
1 - 2	3.862E+00	.00	2.584E+00	.00	6.911E-01	.00	1.697E+00	.00	3.315E-01	.00	5.266E-03	5.653E-03	1.754E-02	1.876E-02
2 - 3	2.094E+00	.00	1.371E+00	.00	4.235E-01	.00	1.006E+00	.00	2.193E-01	.00	2.255E-03	2.412E-03	6.093E-03	6.517E-03
3 - 4	9.037E-01	.00	6.832E-01	.00	2.256E-01	.00	5.617E-01	.00	1.268E-01	.00	1.047E-03	1.120E-03	2.662E-03	2.847E-03
4 - 5	4.389E-01	.00	3.306E-01	.00	1.096E-01	.00	2.989E-01	.00	5.969E-02	.00	6.522E-04	6.975E-04	9.721E-04	1.040E-03
5 - 6	2.395E-01	.00	1.622E-01	.00	5.323E-02	.00	1.462E-01	.00	2.482E-02	.00	4.763E-04	5.095E-04	4.763E-04	5.095E-04
6 - 7	1.164E-01	.00	8.538E-02	.00	2.192E-02	.00	6.757E-02	.00	1.081E-02	.00	3.838E-04	4.105E-04	3.838E-04	4.105E-04
7 - 8	5.408E-02	.00	4.314E-02	.00	7.588E-03	.00	2.853E-02	.00	3.310E-03	.00	3.755E-04	4.016E-04	3.755E-04	4.016E-04
8 - 9	2.349E-02	.00	2.103E-02	.00	2.753E-03	.00	9.430E-03	.00	9.915E-04	.00	3.732E-04	3.992E-04	3.732E-04	3.992E-04
9 - 10	9.094E-03	.00	9.886E-03	.00	1.068E-03	.00	2.666E-03	.00	5.980E-04	.00	3.609E-04	3.860E-04	3.609E-04	3.860E-04
10 - 11	2.935E-03	.00	3.687E-03	.00	5.783E-04	.00	1.034E-03	.00	3.438E-04	.00	3.450E-04	3.690E-04	3.450E-04	3.690E-04
11 - 12	8.510E-04	.00	9.678E-04	.00	4.426E-04	.00	5.626E-04	.00	2.026E-04	.00	3.423E-04	3.661E-04	3.423E-04	3.661E-04
12 - 13	2.344E-04	.00	2.286E-04	.00	2.050E-04	.00	2.233E-04	.00	1.194E-04	.00	3.371E-04	3.605E-04	3.371E-04	3.605E-04
13 - 14	7.570E-05	.00	7.551E-05	.00	6.865E-05	.00	7.534E-05	.00	6.408E-05	.00	3.204E-04	3.427E-04	3.204E-04	3.427E-04
14 - 15	3.991E-05	.00	4.142E-05	.00	3.768E-05	.00	4.160E-05	.00	3.523E-05	.00	3.074E-04	3.288E-04	3.074E-04	3.288E-04
15 - 16	2.574E-05	.00	2.817E-05	.00	2.566E-05	.00	2.856E-05	.00	2.401E-05	.00	2.905E-04	3.108E-04	2.905E-04	3.108E-04
16 - 17	1.801E-05	.00	2.067E-05	.00	1.878E-05	.00	2.115E-05	.00	1.756E-05	.00	2.816E-04	3.012E-04	2.816E-04	3.012E-04
17 - 18	1.354E-05	.00	1.565E-05	.00	1.416E-05	.00	1.608E-05	.00	1.323E-05	.00	2.754E-04	2.946E-04	2.754E-04	2.946E-04
18 - 19	1.095E-05	.00	1.251E-05	.00	1.124E-05	.00	1.288E-05	.00	1.049E-05	.00	2.490E-04	2.663E-04	2.490E-04	2.663E-04
19 - 20	9.051E-06	.00	1.024E-05	.00	9.117E-06	.00	1.052E-05	.00	8.482E-06	.00	1.963E-04	2.099E-04	1.963E-04	2.099E-04
20 - 21	8.026E-06	0.00	8.973E-06	.00	7.928E-06	0.00	9.206E-06	0.00	7.343E-06	0.00	1.432E-04	1.532E-04	1.432E-04	1.532E-04
21 - 22	7.468E-06	0.00	8.254E-06	0.00	7.222E-06	0.00	8.456E-06	0.00	6.665E-06	0.00	1.057E-04	1.130E-04	1.057E-04	1.130E-04
22 - 23	6.633E-06	0.00	7.302E-06	0.00	6.306E-06	0.00	7.436E-06	0.00	5.730E-06	0.00	8.016E-05	8.573E-05	8.016E-05	8.573E-05
23 - 24	6.231E-06	0.00	6.855E-06	0.00	5.850E-06	0.00	6.955E-06	0.00	5.336E-06	0.00	6.238E-05	6.672E-05	6.238E-05	6.672E-05
24 - 25	6.018E-06	0.00	6.590E-06	0.00	5.566E-06	0.00	6.724E-06	0.00	5.049E-06	0.00	5.091E-05	5.446E-05	5.091E-05	5.446E-05
25 - 30	3.325E-06	0.00	3.632E-06	0.00	2.945E-06	0.00	3.701E-06	0.00	2.684E-06	0.00	2.717E-05	2.906E-05	2.717E-05	2.906E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.758E-06	8.297E-06	7.758E-06	8.297E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.042E-06	2.184E-06	2.042E-06	2.184E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.911064 MICROMETERS

FREQUENCY = 3435.170 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.021E+00	.00	1.317E+00	.00	2.091E-01	.00	7.390E-01	.00	5.123E-02	.00	1.782E-02	1.908E-02	8.683E-02	9.298E-02
0 - 1	1.496E+00	.00	9.820E-01	.00	1.611E-01	.00	5.421E-01	.00	4.923E-02	.00	1.216E-02	1.302E-02	5.475E-02	5.862E-02
1 - 2	8.274E-01	.00	5.190E-01	.00	9.434E-02	.00	2.907E-01	.00	3.783E-02	.00	5.307E-03	5.683E-03	1.751E-02	1.886E-02
2 - 3	4.055E-01	.00	2.464E-01	.00	5.354E-02	.00	1.538E-01	.00	2.331E-02	.00	2.264E-03	2.425E-03	6.118E-03	6.551E-03
3 - 4	1.568E-01	.00	1.089E-01	.00	2.585E-02	.00	7.752E-02	.00	1.238E-02	.00	1.052E-03	1.126E-03	2.672E-03	2.862E-03
4 - 5	6.630E-02	.00	4.671E-02	.00	1.114E-02	.00	3.692E-02	.00	5.200E-03	.00	6.548E-04	7.012E-04	9.760E-04	1.045E-03
5 - 6	3.181E-02	.00	2.035E-02	.00	4.824E-03	.00	1.588E-02	.00	1.910E-03	.00	4.783E-04	5.121E-04	4.783E-04	5.121E-04
6 - 7	1.360E-02	.00	9.522E-03	.00	1.780E-03	.00	6.414E-03	.00	7.408E-04	.00	3.853E-04	4.126E-04	3.853E-04	4.126E-04
7 - 8	5.523E-03	.00	4.246E-03	.00	5.581E-04	.00	2.378E-03	.00	2.062E-04	.00	3.770E-04	4.037E-04	3.770E-04	4.037E-04
8 - 9	2.124E-03	.00	1.833E-03	.00	1.859E-04	.00	6.972E-04	.00	5.949E-05	.00	3.747E-04	4.012E-04	3.747E-04	4.012E-04
9 - 10	7.335E-04	.00	7.677E-04	.00	6.707E-05	.00	1.781E-04	.00	3.549E-05	.00	3.623E-04	3.880E-04	3.623E-04	3.880E-04
10 - 11	2.123E-04	.00	2.579E-04	.00	3.527E-05	.00	6.694E-05	.00	2.099E-05	.00	3.464E-04	3.710E-04	3.464E-04	3.710E-04
11 - 12	5.727E-05	.00	6.287E-05	.00	2.670E-05	.00	3.739E-05	.00	1.277E-05	.00	3.436E-04	3.680E-04	3.436E-04	3.680E-04
12 - 13	1.557E-05	.00	1.469E-05	.00	1.290E-05	.00	1.591E-05	.00	7.797E-06	.00	3.385E-04	3.624E-04	3.385E-04	3.624E-04
13 - 14	5.072E-06	.00	5.330E-06	.00	4.975E-06	.00	6.435E-06	.00	4.517E-06	.00	3.217E-04	3.445E-04	3.217E-04	3.445E-04
14 - 15	2.562E-06	.00	3.226E-06	.00	2.926E-06	.00	3.917E-06	.00	2.672E-06	.00	3.086E-04	3.305E-04	3.086E-04	3.305E-04
15 - 16	1.476E-06	.00	2.237E-06	.00	2.016E-06	.00	2.732E-06	.00	1.852E-06	.00	2.917E-04	3.124E-04	2.917E-04	3.124E-04
16 - 17	0.	.00	1.638E-06	.00	1.463E-06	.00	2.067E-06	.00	1.339E-06	.00	2.828E-04	3.028E-04	2.828E-04	3.028E-04
17 - 18	0.	.00	1.235E-06	.00	1.088E-06	.00	1.554E-06	.00	0.	.00	2.765E-04	2.961E-04	2.765E-04	2.961E-04
18 - 19	0.	.00	0.	.00	0.	.00	1.211E-06	.00	0.	.00	2.500E-04	2.677E-04	2.500E-04	2.677E-04
19 - 20	0.	.00	0.	.00	0.	.00	0.	.00	0.	.00	1.971E-04	2.110E-04	1.971E-04	2.110E-04
20 - 21	0.	.00	0.	.00	0.	0.00	0.	0.00	0.	0.00	1.438E-04	1.540E-04	1.438E-04	1.540E-04
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.061E-04	1.136E-04	1.061E-04	1.136E-04
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	8.048E-05	8.618E-05	8.048E-05	8.618E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.264E-05	6.707E-05	6.264E-05	6.707E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.112E-05	5.474E-05	5.112E-05	5.474E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.728E-05	2.921E-05	2.728E-05	2.921E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.789E-06	8.341E-06	7.789E-06	8.341E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.050E-06	2.195E-06	2.050E-06	2.195E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.910259 MICROMETERS

FREQUENCY = 3436.120 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.209E+00	.00	1.424E+00	.00	2.209E-01	.00	7.913E-01	.00	5.421E-02	.00	1.782E-02	1.909E-02	8.685E-02	9.300E-02
0 - 1	1.632E+00	.00	1.062E+00	.00	1.705E-01	.00	5.803E-01	.00	5.220E-02	.00	1.216E-02	1.303E-02	5.476E-02	5.864E-02
1 - 2	8.978E-01	.00	5.604E-01	.00	1.003E-01	.00	3.110E-01	.00	4.033E-02	.00	5.308E-03	5.684E-03	1.751E-02	1.886E-02
2 - 3	4.389E-01	.00	2.654E-01	.00	5.718E-02	.00	1.647E-01	.00	2.501E-02	.00	2.265E-03	2.425E-03	6.119E-03	6.553E-03
3 - 4	1.693E-01	.00	1.171E-01	.00	2.774E-02	.00	8.311E-02	.00	1.338E-02	.00	1.052E-03	1.126E-03	2.673E-03	2.862E-03
4 - 5	7.138E-02	.00	5.022E-02	.00	1.203E-02	.00	3.969E-02	.00	5.671E-03	.00	6.549E-04	7.014E-04	9.753E-04	1.045E-03
5 - 6	3.424E-02	.00	2.190E-02	.00	5.250E-03	.00	1.714E-02	.00	2.106E-03	.00	4.784E-04	5.123E-04	4.784E-04	5.123E-04
6 - 7	1.468E-02	.00	1.028E-02	.00	1.952E-03	.00	6.976E-03	.00	8.258E-04	.00	3.854E-04	4.127E-04	3.854E-04	4.127E-04
7 - 8	5.985E-03	.00	4.607E-03	.00	6.141E-04	.00	2.610E-03	.00	2.300E-04	.00	3.771E-04	4.038E-04	3.771E-04	4.038E-04
8 - 9	2.315E-03	.00	2.003E-03	.00	2.039E-04	.00	7.709E-04	.00	6.459E-05	.00	3.748E-04	4.014E-04	3.748E-04	4.014E-04
9 - 10	8.035E-04	.00	8.458E-04	.00	7.286E-05	.00	1.965E-04	.00	3.811E-05	.00	3.624E-04	3.881E-04	3.624E-04	3.881E-04
10 - 11	2.324E-04	.00	2.854E-04	.00	3.784E-05	.00	7.263E-05	.00	2.191E-05	.00	3.465E-04	3.711E-04	3.465E-04	3.711E-04
11 - 12	6.143E-05	.00	6.839E-05	.00	2.874E-05	.00	3.954E-05	.00	1.292E-05	.00	3.437E-04	3.681E-04	3.437E-04	3.681E-04
12 - 13	1.558E-05	.00	1.490E-05	.00	1.326E-05	.00	1.574E-05	.00	7.624E-06	.00	3.385E-04	3.625E-04	3.385E-04	3.625E-04
13 - 14	4.645E-06	.00	4.777E-06	.00	4.445E-06	00	5.369E-06	.00	4.105E-06	.00	3.218E-04	3.446E-04	3.218E-04	3.446E-04
14 - 15	2.280E-06	.00	2.634E-06	.00	2.434E-06	00	2.982E-06	.00	2.266E-06	.00	3.087E-04	3.306E-04	3.087E-04	3.306E-04
15 - 16	1.373E-06	.00	1.792E-06	.00	1.648E-06	.00	2.049E-06	.00	1.540E-06	.00	2.918E-04	3.125E-04	2.918E-04	3.125E-04
16 - 17	0.	.00	1.314E-06	.00	1.199E-06	.00	1.518E-06	.00	1.117E-06	.00	2.828E-04	3.029E-04	2.828E-04	3.029E-04
17 - 18	0.	.00	0.	.00	0.	.00	1.153E-06	.00	0.	.00	2.766E-04	2.962E-04	2.766E-04	2.962E-04
18 - 19	0.	.00	0.	.00	0.	.00	0.	.00	0.	.00	2.500E-04	2.677E-04	2.500E-04	2.677E-04
19 - 20	0.	.00	0.	.00	0.	.00	0.	.00	0.	.00	1.971E-04	2.111E-04	1.971E-04	2.111E-04
20 - 21	0.	.00	0.	.00	0.	0.00	0.	0.00	0.	0.00	1.438E-04	1.540E-04	1.438E-04	1.540E-04
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.061E-04	1.136E-04	1.051E-04	1.136E-04
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	8.050E-05	8.621E-05	8.050E-05	8.621E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.265E-05	6.709E-05	6.265E-05	6.709E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.113E-05	5.476E-05	5.113E-05	5.476E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.729E-05	2.922E-05	2.729E-05	2.922E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	7.791E-06	8.343E-06	7.791E-06	8.343E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.050E-06	2.196E-06	2.050E-06	2.196E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.870569 MICROMETERS

FREQUENCY = 3483.630 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.967E+00	.00	4.165E+00	.00	8.817E-01	.00	2.546E+00	.00	2.781E-01	.00	1.802E-02	1.936E-02	8.783E-02	9.435E-02
0 - 1	4.570E+00	.00	3.181E+00	.00	6.972E-01	.00	1.928E+00	.00	2.627E-01	.00	1.230E-02	1.322E-02	5.538E-02	5.949E-02
1 - 2	2.710E+00	.00	1.777E+00	.00	4.311E-01	.00	1.111E+00	.00	2.040E-01	.00	5.368E-03	5.767E-03	1.781E-02	1.914E-02
2 - 3	1.414E+00	.00	9.064E-01	.00	2.594E-01	.00	6.348E-01	.00	1.334E-01	.00	2.290E-03	2.461E-03	6.188E-03	6.648E-03
3 - 4	5.896E-01	.00	4.359E-01	.00	1.368E-01	.00	3.449E-01	.00	7.754E-02	.00	1.064E-03	1.143E-03	2.703E-03	2.904E-03
4 - 5	2.759E-01	.00	2.053E-01	.00	6.688E-02	.00	1.795E-01	.00	3.800E-02	.00	6.623E-04	7.115E-04	9.873E-04	1.061E-03
5 - 6	1.464E-01	.00	9.935E-02	.00	3.355E-02	.00	8.682E-02	.00	1.771E-02	.00	4.838E-04	5.197E-04	4.838E-04	5.197E-04
6 - 7	7.028E-02	.00	5.215E-02	.00	1.539E-02	.00	4.046E-02	.00	9.220E-03	.00	3.898E-04	4.187E-04	3.898E-04	4.187E-04
7 - 8	3.295E-02	.00	2.674E-02	.00	6.913E-03	.00	1.811E-02	.00	4.511E-03	.00	3.814E-04	4.097E-04	3.814E-04	4.097E-04
8 - 9	1.514E-02	.00	1.361E-02	.00	3.729E-03	.00	7.277E-03	.00	2.655E-03	.00	3.790E-04	4.072E-04	3.790E-04	4.072E-04
9 - 10	6.747E-03	.00	7.076E-03	.00	2.250E-03	.00	3.203E-03	.00	1.898E-03	.00	3.665E-04	3.937E-04	3.665E-04	3.937E-04
10 - 11	3.071E-03	.00	3.402E-03	.00	1.612E-03	.00	1.909E-03	.00	1.349E-03	.00	3.504E-04	3.765E-04	3.504E-04	3.765E-04
11 - 12	1.613E-03	.00	1.657E-03	.00	1.184E-03	.00	1.347E-03	.00	9.653E-04	.00	3.476E-04	3.734E-04	3.476E-04	3.734E-04
12 - 13	1.041E-03	.00	9.916E-04	.00	8.176E-04	.00	8.729E-04	.00	6.814E-04	.00	3.424E-04	3.678E-04	3.424E-04	3.678E-04
13 - 14	6.977E-04	.00	6.819E-04	.00	5.711E-04	.00	6.257E-04	.00	5.079E-04	.00	3.254E-04	3.496E-04	3.254E-04	3.496E-04
14 - 15	5.379E-04	.00	5.100E-04	.00	4.069E-04	.00	4.522E-04	.00	3.579E-04	.00	3.122E-04	3.354E-04	3.122E-04	3.354E-04
15 - 16	3.931E-04	.00	3.613E-04	.00	2.952E-04	.00	3.193E-04	.00	2.610E-04	.00	2.951E-04	3.170E-04	2.951E-04	3.170E-04
16 - 17	2.727E-04	.00	2.607E-04	.00	2.164E-04	.00	2.473E-04	.00	1.912E-04	.00	2.860E-04	3.073E-04	2.860E-04	3.073E-04
17 - 18	1.973E-04	.00	1.935E-04	.00	1.615E-04	.00	1.813E-04	.00	1.397E-04	.00	2.797E-04	3.005E-04	2.797E-04	3.005E-04
18 - 19	1.395E-04	.00	1.407E-04	.00	1.167E-04	.00	1.342E-04	.00	1.036E-04	.00	2.529E-04	2.716E-04	2.529E-04	2.716E-04
19 - 20	9.800E-05	.00	1.036E-04	.00	8.432E-05	.00	1.010E-04	.00	7.518E-05	.00	1.994E-04	2.142E-04	1.994E-04	2.142E-04
20 - 21	7.097E-05	.00	7.569E-05	.00	6.345E-05	0.00	7.362E-05	.00	5.609E-05	0.00	1.454E-04	1.562E-04	1.454E-04	1.562E-04
21 - 22	5.161E-05	0.00	5.717E-05	0.00	4.698E-05	0.00	5.632E-05	0.00	4.112E-05	0.00	1.073E-04	1.153E-04	1.073E-04	1.153E-04
22 - 23	3.742E-05	0.00	4.181E-05	0.00	3.466E-05	0.00	4.225E-05	0.00	2.996E-05	0.00	8.141E-05	8.746E-05	8.141E-05	8.746E-05
23 - 24	2.793E-05	0.00	3.259E-05	0.00	2.582E-05	0.00	3.125E-05	0.00	2.322E-05	0.00	6.336E-05	6.806E-05	6.336E-05	6.806E-05
24 - 25	2.134E-05	0.00	2.387E-05	0.00	2.000E-05	0.00	2.402E-05	0.00	1.682E-05	0.00	5.171E-05	5.555E-05	5.171E-05	5.555E-05
25 - 30	9.592E-06	0.00	1.106E-05	0.00	8.569E-06	0.00	1.121E-05	0.00	7.477E-06	0.00	2.760E-05	2.965E-05	2.760E-05	2.965E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	2.592E-06	0.00	0.	0.00	7.879E-06	8.464E-06	7.879E-06	8.464E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.074E-06	2.228E-06	2.074E-06	2.228E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.865666 MICROMETERS

FREQUENCY = 3489.590 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL		HAZY
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_e(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.599E+00	.00	2.509E+00	.00	5.374E-01	.00	1.535E+00	.00	1.769E-01	.00	1.805E-02	1.940E-02	8.795E-02	9.452E-02
0 - 1	2.773E+00	.00	1.928E+00	.00	4.272E-01	.00	1.169E+00	.00	1.672E-01	.00	1.232E-02	1.324E-02	5.546E-02	5.960E-02
1 - 2	1.663E+00	.00	1.090E+00	.00	2.678E-01	.00	6.810E-01	.00	1.312E-01	.00	5.376E-03	5.777E-03	1.734E-02	1.917E-02
2 - 3	8.783E-01	.00	5.634E-01	.00	1.642E-01	.00	3.934E-01	.00	8.708E-02	.00	2.294E-03	2.465E-03	6.197E-03	6.650E-03
3 - 4	3.721E-01	.00	2.752E-01	.00	8.944E-02	.00	2.170E-01	.00	5.351E-02	.00	1.065E-03	1.145E-03	2.707E-03	2.909E-03
4 - 5	1.770E-01	.00	1.324E-01	.00	4.638E-02	.00	1.152E-01	.00	2.888E-02	.00	6.633E-04	7.128E-04	9.887E-04	1.063E-03
5 - 6	9.570E-02	.00	6.631E-02	.00	2.539E-02	.00	5.784E-02	.00	1.595E-02	.00	4.845E-04	5.207E-04	4.845E-04	5.207E-04
6 - 7	4.764E-02	.00	3.645E-02	.00	1.375E-02	.00	2.868E-02	.00	1.007E-02	.00	3.903E-04	4.195E-04	3.903E-04	4.195E-04
7 - 8	2.382E-02	.00	2.000E-02	.00	7.950E-03	.00	1.454E-02	.00	6.552E-03	.00	3.819E-04	4.104E-04	3.819E-04	4.104E-04
8 - 9	1.233E-02	.00	1.124E-02	.00	5.428E-03	.00	7.488E-03	.00	4.744E-03	.00	3.796E-04	4.079E-04	3.796E-04	4.079E-04
9 - 10	6.664E-03	.00	6.806E-03	.00	3.866E-03	.00	4.523E-03	.00	3.588E-03	.00	3.670E-04	3.944E-04	3.670E-04	3.944E-04
10 - 11	4.039E-03	.00	4.184E-03	.00	3.013E-03	.00	3.212E-03	.00	2.678E-03	.00	3.509E-04	3.771E-04	3.509E-04	3.771E-04
11 - 12	2.744E-03	.00	2.765E-03	.00	2.251E-03	.00	2.446E-03	.00	1.995E-03	.00	3.481E-04	3.741E-04	3.481E-04	3.741E-04
12 - 13	2.106E-03	.00	2.016E-03	.00	1.674E-03	.00	1.730E-03	.00	1.456E-03	.00	3.428E-04	3.685E-04	3.428E-04	3.685E-04
13 - 14	1.546E-03	.00	1.499E-03	.00	1.257E-03	.00	1.332E-03	.00	1.126E-03	.00	3.259E-04	3.502E-04	3.259E-04	3.502E-04
14 - 15	1.261E-03	.00	1.155E-03	.00	9.210E-04	.00	9.881E-04	.00	8.135E-04	.00	3.126E-04	3.360E-04	3.126E-04	3.360E-04
15 - 16	9.643E-04	.00	8.314E-04	.00	6.795E-04	.00	7.072E-04	.00	6.025E-04	.00	2.955E-04	3.176E-04	2.955E-04	3.176E-04
16 - 17	6.908E-04	.00	6.068E-04	.00	5.045E-04	.00	5.542E-04	.00	4.469E-04	.00	2.864E-04	3.078E-04	2.864E-04	3.078E-04
17 - 18	5.035E-04	.00	4.545E-04	.00	3.802E-04	.00	4.092E-04	.00	3.295E-04	.00	2.801E-04	3.010E-04	2.801E-04	3.010E-04
18 - 19	3.520E-04	.00	3.313E-04	.00	2.763E-04	.00	3.041E-04	.00	2.458E-04	.00	2.532E-04	2.721E-04	2.532E-04	2.721E-04
19 - 20	2.435E-04	.00	2.433E-04	.00	1.999E-04	.00	2.294E-04	.00	1.787E-04	.00	1.996E-04	2.146E-04	1.996E-04	2.146E-04
20 - 21	1.728E-04	.00	1.764E-04	.00	1.500E-04	0.00	1.665E-04	.00	1.332E-04	0.00	1.456E-04	1.565E-04	1.456E-04	1.565E-04
21 - 22	1.224E-04	0.00	1.318E-04	0.00	1.101E-04	0.00	1.265E-04	0.00	9.688E-05	0.00	1.075E-04	1.155E-04	1.075E-04	1.155E-04
22 - 23	8.665E-05	0.00	9.480E-05	0.00	8.044E-05	0.00	9.410E-05	0.00	6.998E-05	0.00	8.152E-05	8.761E-05	8.152E-05	8.761E-05
23 - 24	6.303E-05	0.00	7.247E-05	0.00	5.889E-05	0.00	6.826E-05	0.00	5.360E-05	0.00	6.345E-05	6.819E-05	6.345E-05	6.819E-05
24 - 25	4.664E-05	0.00	5.149E-05	0.00	4.469E-05	0.00	5.094E-05	0.00	3.779E-05	0.00	5.178E-05	5.565E-05	5.178E-05	5.565E-05
25 - 30	1.985E-05	0.00	2.282E-05	0.00	1.855E-05	0.00	2.284E-05	0.00	1.626E-05	0.00	2.763E-05	2.970E-05	2.763E-05	2.970E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	5.110E-06	0.00	0.	0.00	7.890E-06	8.479E-06	7.890E-06	8.479E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.076E-06	2.232E-06	2.076E-06	2.232E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.854044 MICROMETERS

FREQUENCY = 3503.800 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.946E+01	.00	2.832E+01	.00	6.610E+00	.00	1.788E+01	.00	2.176E+00	.00	1.811E-02	1.948E-02	8.825E-02	9.493E-02
0 - 1	3.068E+01	.00	2.185E+01	.00	5.270E+00	.00	1.372E+01	.00	2.053E+00	.00	1.236E-02	1.330E-02	5.564E-02	5.985E-02
1 - 2	1.875E+01	.00	1.248E+01	.00	3.309E+00	.00	8.127E+00	.00	1.601E+00	.00	5.394E-03	5.802E-03	1.790E-02	1.925E-02
2 - 3	1.002E+01	.00	6.537E+00	.00	2.015E+00	.00	4.768E+00	.00	1.054E+00	.00	2.301E-03	2.476E-03	6.217E-03	6.688E-03
3 - 4	4.280E+00	.00	3.227E+00	.00	1.072E+00	.00	2.647E+00	.00	6.107E-01	.00	1.069E-03	1.150E-03	2.716E-03	2.922E-03
4 - 5	2.062E+00	.00	1.553E+00	.00	5.230E-01	.00	1.405E+00	.00	2.909E-01	.00	6.655E-04	7.159E-04	9.920E-04	1.067E-03
5 - 6	1.121E+00	.00	7.617E-01	.00	2.570E-01	.00	6.892E-01	.00	1.241E-01	.00	4.861E-04	5.229E-04	4.861E-04	5.229E-04
6 - 7	5.461E-01	.00	4.024E-01	.00	1.083E-01	.00	3.217E-01	.00	5.619E-02	.00	3.916E-04	4.213E-04	3.916E-04	4.213E-04
7 - 8	2.560E-01	.00	2.053E-01	.00	3.938E-02	.00	1.385E-01	.00	1.889E-02	.00	3.832E-04	4.122E-04	3.832E-04	4.122E-04
8 - 9	1.131E-01	.00	1.017E-01	.00	1.553E-02	.00	4.766E-02	.00	6.756E-03	.00	3.808E-04	4.097E-04	3.808E-04	4.097E-04
9 - 10	4.523E-02	.00	4.912E-02	.00	6.771E-03	.00	1.471E-02	.00	4.335E-03	.00	3.682E-04	3.961E-04	3.682E-04	3.961E-04
10 - 11	1.567E-02	.00	1.932E-02	.00	4.020E-03	.00	6.336E-03	.00	2.716E-03	.00	3.521E-04	3.787E-04	3.521E-04	3.787E-04
11 - 12	5.268E-03	.00	5.840E-03	.00	3.061E-03	.00	3.752E-03	.00	1.762E-03	.00	3.493E-04	3.757E-04	3.493E-04	3.757E-04
12 - 13	1.987E-03	.00	1.912E-03	.00	1.671E-03	.00	1.835E-03	.00	1.159E-03	.00	3.440E-04	3.700E-04	3.440E-04	3.700E-04
13 - 14	9.400E-04	.00	9.431E-04	.00	8.466E-04	.00	9.800E-04	.00	7.746E-04	.00	3.269E-04	3.517E-04	3.269E-04	3.517E-04
14 - 15	6.243E-04	.00	6.604E-04	.00	5.761E-04	.00	6.963E-04	.00	5.273E-04	.00	3.137E-04	3.374E-04	3.137E-04	3.374E-04
15 - 16	4.307E-04	.00	4.882E-04	.00	4.345E-04	.00	5.318E-04	.00	4.024E-04	.00	2.965E-04	3.189E-04	2.965E-04	3.189E-04
16 - 17	2.977E-04	.00	3.791E-04	.00	3.422E-04	.00	4.525E-04	.00	3.179E-04	.00	2.874E-04	3.091E-04	2.874E-04	3.091E-04
17 - 18	2.260E-04	.00	3.085E-04	.00	2.795E-04	.00	3.795E-04	.00	2.564E-04	.00	2.810E-04	3.023E-04	2.810E-04	3.023E-04
18 - 19	1.826E-04	.00	2.584E-04	.00	2.290E-04	.00	3.301E-04	.00	2.149E-04	.00	2.540E-04	2.733E-04	2.540E-04	2.733E-04
19 - 20	1.559E-04	.00	2.284E-04	.00	1.927E-04	.00	2.978E-04	.00	1.800E-04	.00	2.003E-04	2.155E-04	2.003E-04	2.155E-04
20 - 21	1.476E-04	.00	2.086E-04	.00	1.743E-04	.00	2.675E-04	.00	1.586E-04	0.00	1.461E-04	1.572E-04	1.461E-04	1.572E-04
21 - 22	1.509E-04	0.00	2.017E-04	0.00	1.594E-04	0.00	2.549E-04	0.00	1.409E-04	0.00	1.078E-04	1.160E-04	1.078E-04	1.160E-04
22 - 23	1.536E-04	0.00	1.963E-04	0.00	1.460E-04	0.00	2.400E-04	0.00	1.243E-04	0.00	8.180E-05	8.799E-05	8.180E-05	8.799E-05
23 - 24	1.586E-04	0.00	2.070E-04	0.00	1.370E-04	0.00	2.310E-04	0.00	1.174E-04	0.00	6.366E-05	6.848E-05	6.366E-05	6.848E-05
24 - 25	1.700E-04	0.00	2.032E-04	0.00	1.346E-04	0.00	2.432E-04	0.00	1.054E-04	0.00	5.196E-05	5.589E-05	5.196E-05	5.589E-05
25 - 30	2.044E-04	0.00	2.383E-04	0.00	1.137E-04	0.00	2.737E-04	0.00	9.587E-05	0.00	2.773E-05	2.983E-05	2.773E-05	2.983E-05
30 - 35	1.012E-04	0.00	1.203E-04	0.00	3.983E-05	0.00	4.355E-04	0.00	2.951E-05	0.00	7.916E-06	8.516E-06	7.916E-06	8.516E-06
35 - 40	9.687E-05	0.00	1.208E-04	0.00	4.322E-05	0.00	1.412E-04	0.00	2.736E-05	0.00	2.083E-06	2.241E-06	2.083E-06	2.241E-06
40 - 45	8.639E-05	0.00	1.139E-04	0.00	4.840E-05	0.00	1.372E-04	0.00	2.639E-05	0.00	0.	0.	0.	0.
45 - 50	6.420E-05	0.00	8.870E-05	0.00	4.188E-05	0.00	1.009E-04	0.00	2.444E-05	0.00	0.	0.	0.	0.
50 - 70	5.826E-06	0.00	7.371E-06	0.00	1.909E-06	0.00	7.439E-06	0.00	5.879E-06	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 2.823104 MICROMETERS

FREQUENCY = 3542.200 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	k_m(km^{-1})	σ_m(km^{-1})	k_m(km^{-1})	σ_m(km^{-1})	k_m(km^{-1})	σ_m(km^{-1})	k_m(km^{-1})	σ_m(km^{-1})	k_m(km^{-1})	σ_m(km^{-1})	k_a(km^{-1})	σ_a(km^{-1})	k_a(km^{-1})	σ_a(km^{-1})
0	1.492E+01	.00	1.083E+01	.00	2.693E+00	.00	6.949E+00	.00	9.857E-01	.00	1.827E-02	1.971E-02	8.904E-02	9.602E-02
0 - 1	1.167E+01	.00	8.414E+00	.00	2.174E+00	.00	5.375E+00	.00	9.344E-01	.00	1.247E-02	1.345E-02	5.614E-02	6.054E-02
1 - 2	7.227E+00	.00	4.901E+00	.00	1.412E+00	.00	3.250E+00	.00	7.472E-01	.00	5.442E-03	5.869E-03	1.806E-02	1.947E-02
2 - 3	3.960E+00	.00	2.656E+00	.00	9.053E-01	.00	1.960E+00	.00	5.207E-01	.00	2.322E-03	2.504E-03	6.273E-03	6.765E-03
3 - 4	1.796E+00	.00	1.388E+00	.00	5.291E-01	.00	1.142E+00	.00	3.359E-01	.00	1.078E-03	1.163E-03	2.740E-03	2.955E-03
4 - 5	9.307E-01	.00	7.274E-01	.00	3.000E-01	.00	6.487E-01	.00	1.945E-01	.00	6.715E-04	7.241E-04	1.001E-03	1.079E-03
5 - 6	5.477E-01	.00	4.068E-01	.00	1.783E-01	.00	3.589E-01	.00	1.128E-01	.00	4.905E-04	5.289E-04	4.905E-04	5.289E-04
6 - 7	3.049E-01	.00	2.487E-01	.00	1.049E-01	.00	1.961E-01	.00	7.047E-02	.00	3.951E-04	4.261E-04	3.951E-04	4.261E-04
7 - 8	1.726E-01	.00	1.506E-01	.00	6.329E-02	.00	1.097E-01	.00	4.320E-02	.00	3.866E-04	4.169E-04	3.866E-04	4.169E-04
8 - 9	1.011E-01	.00	9.152E-02	.00	4.176E-02	.00	6.069E-02	.00	2.912E-02	.00	3.843E-04	4.144E-04	3.843E-04	4.144E-04
9 - 10	5.951E-02	.00	5.812E-02	.00	2.719E-02	.00	3.580E-02	.00	2.205E-02	.00	3.716E-04	4.007E-04	3.716E-04	4.007E-04
10 - 11	3.643E-02	.00	3.592E-02	.00	2.027E-02	.00	2.482E-02	.00	1.714E-02	.00	3.552E-04	3.831E-04	3.552E-04	3.831E-04
11 - 12	2.290E-02	.00	2.218E-02	.00	1.547E-02	.00	1.978E-02	.00	1.319E-02	.00	3.524E-04	3.800E-04	3.524E-04	3.800E-04
12 - 13	1.529E-02	.00	1.404E-02	.00	1.166E-02	.00	1.454E-02	.00	9.863E-03	.00	3.471E-04	3.743E-04	3.471E-04	3.743E-04
13 - 14	9.295E-03	.00	9.768E-03	.00	8.817E-03	.00	1.153E-02	.00	7.764E-03	.00	3.299E-04	3.557E-04	3.299E-04	3.557E-04
14 - 15	6.264E-03	.00	7.663E-03	.00	6.455E-03	.00	8.718E-03	.00	5.682E-03	.00	3.165E-04	3.413E-04	3.165E-04	3.413E-04
15 - 16	3.921E-03	.00	5.588E-03	.00	4.735E-03	.00	6.318E-03	.00	4.204E-03	.00	2.992E-04	3.226E-04	2.992E-04	3.226E-04
16 - 17	2.441E-03	.00	4.113E-03	.00	3.483E-03	.00	4.994E-03	.00	3.077E-03	.00	2.900E-04	3.127E-04	2.900E-04	3.127E-04
17 - 18	1.842E-03	.00	3.099E-03	.00	2.595E-03	.00	3.710E-03	.00	2.234E-03	.00	2.836E-04	3.058E-04	2.836E-04	3.058E-04
18 - 19	1.472E-03	.00	2.304E-03	.00	1.841E-03	.00	2.768E-03	.00	1.638E-03	.00	2.563E-04	2.764E-04	2.563E-04	2.764E-04
19 - 20	1.165E-03	.00	1.752E-03	.00	1.338E-03	.00	2.093E-03	.00	1.169E-03	.00	2.021E-04	2.179E-04	2.021E-04	2.179E-04
20 - 21	9.453E-04	.00	1.314E-03	.00	1.005E-03	.00	1.521E-03	.00	8.549E-04	0.00	1.474E-04	1.590E-04	1.474E-04	1.590E-04
21 - 22	7.645E-04	0.00	1.014E-03	0.00	7.384E-04	0.00	1.156E-03	0.00	6.114E-04	0.00	1.088E-04	1.173E-04	1.088E-04	1.173E-04
22 - 23	5.967E-04	0.00	7.651E-04	0.00	5.400E-04	0.00	8.600E-04	0.00	4.334E-04	0.00	8.253E-05	8.900E-05	8.253E-05	8.900E-05
23 - 24	4.626E-04	0.00	6.127E-04	0.00	3.954E-04	0.00	6.326E-04	0.00	3.258E-04	0.00	6.423E-05	6.927E-05	6.423E-05	6.927E-05
24 - 25	3.641E-04	0.00	4.879E-04	0.00	3.000E-04	0.00	4.927E-04	0.00	2.256E-04	0.00	5.242E-05	5.653E-05	5.242E-05	5.653E-05
25 - 30	1.886E-04	0.00	2.337E-04	0.00	1.289E-04	0.00	2.517E-04	0.00	1.038E-04	0.00	2.798E-05	3.017E-05	2.798E-05	3.017E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	7.383E-05	0.00	0.	0.00	7.987E-06	8.614E-06	7.987E-06	8.614E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.102E-06	2.267E-06	2.102E-06	2.267E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

Appendix B

Attenuation Coefficients (km-1) for a Selected List of DF Laser Frequencies for Five Geographical Model Atmospheres and Two Aerosol Models

WAVELENGTH = 5.046987 MICROMETERS

FREQUENCY = 1981.380 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.767E-01	0.00	3.159E-01	0.00	5.574E-02	0.00	1.820E-01	0.00	1.520E-02	0.00	1.096E-02	1.063E-02	5.339E-02	5.182E-02
0 - 1	3.561E-01	0.00	2.374E-01	0.00	4.342E-02	0.00	1.351E-01	0.00	1.449E-02	0.00	7.478E-03	7.258E-03	3.366E-02	3.267E-02
1 - 2	2.099E-01	0.00	1.277E-01	0.00	2.602E-02	0.00	7.449E-02	0.00	1.118E-02	0.00	3.263E-03	3.167E-03	1.083E-02	1.051E-02
2 - 3	1.005E-01	0.00	6.219E-02	0.00	1.513E-02	0.00	4.068E-02	0.00	7.053E-03	0.00	1.392E-03	1.351E-03	3.762E-03	3.651E-03
3 - 4	3.989E-02	0.00	2.837E-02	0.00	7.561E-03	0.00	2.116E-02	0.00	3.866E-03	0.00	6.467E-04	6.276E-04	1.643E-03	1.595E-03
4 - 5	1.753E-02	0.00	1.262E-02	0.00	3.410E-03	0.00	1.046E-02	0.00	1.699E-03	0.00	4.026E-04	3.908E-04	6.802E-04	5.825E-04
5 - 6	8.754E-03	0.00	5.724E-03	0.00	1.546E-03	0.00	4.718E-03	0.00	6.568E-04	0.00	2.941E-04	2.854E-04	2.941E-04	2.854E-04
6 - 7	3.922E-03	0.00	2.795E-03	0.00	5.965E-04	0.00	2.011E-03	0.00	2.671E-04	0.00	2.369E-04	2.299E-04	2.369E-04	2.299E-04
7 - 8	1.677E-03	0.00	1.309E-03	0.00	1.949E-04	0.00	7.865E-04	0.00	7.718E-05	0.00	2.[illegible]8E-04	2.250E-04	2.318E-04	2.250E-04
8 - 9	6.776E-04	0.00	5.936E-04	0.00	6.715E-05	0.00	2.424E-04	0.00	2.253E-05	0.00	2.304E-04	2.236E-04	2.304E-04	2.236E-04
9 - 10	2.453E-04	0.00	2.610E-04	0.00	2.488E-05	0.00	6.451E-05	0.00	1.344E-05	0.00	2.228E-04	2.162E-04	2.228E-04	2.162E-04
10 - 11	7.426E-05	0.00	9.155E-05	0.00	1.319E-05	0.00	2.448E-05	0.00	7.822E-06	0.00	2.130E-04	2.067E-04	2.130E-04	2.067E-04
11 - 12	2.058E-05	0.00	2.293E-05	0.00	1.000E-05	0.00	1.347E-05	0.00	4.675E-06	0.00	2.113E-04	2.051E-04	2.113E-04	2.051E-04
12 - 13	5.583E-06	0.00	5.341E-06	0.00	4.724E-06	0.00	5.530E-06	0.00	2.801E-06	0.00	2.081E-04	2.020E-04	2.081E-04	2.020E-04
13 - 14	1.801E-06	0.00	1.851E-06	0.00	1.793E-06	0.00	2.048E-06	0.00	1.563E-06	0.00	1.976E-04	1.920E-04	1.978E-04	1.920E-04
14 - 15	0.	0.00	1.070E-06	0.00	0.	0.00	1.189E-06	0.00	0.	0.00	1.898E-04	1.842E-04	1.898E-04	1.842E-04
15 - 16	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.794E-04	1.741E-04	1.794E-04	1.741E-04
16 - 17	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.739E-04	1.687E-04	1.739E-04	1.687E-04
17 - 18	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.700E-04	1.650E-04	1.700E-04	1.650E-04
18 - 19	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.537E-04	1.492E-04	1.537E-04	1.492E-04
19 - 20	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.212E-04	1.176E-04	1.212E-04	1.176E-04
20 - 21	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	8.842E-05	8.581E-05	8.842E-05	8.581E-05
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.524E-05	6.332E-05	6.524E-05	6.332E-05
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.949E-05	4.803E-05	4.949E-05	4.803E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	3.851E-05	3.738E-05	3.851E-05	3.738E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	3.143E-05	3.051E-05	3.143E-05	3.051E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.678E-05	1.628E-05	1.678E-05	1.628E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.790E-06	4.648E-06	4.790E-06	4.648E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.260E-06	1.223E-06	1.260E-06	1.223E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.991116 MICROMETERS

FREQUENCY = 2003.560 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.671E-01	0.00	2.510E-01	0.00	4.795E-02	0.00	1.483E-01	0.00	1.376E-02	0.00	1.107E-02	1.076E-02	5.394E-02	5.245E-02
0 - 1	2.732E-01	0.00	1.906E-01	0.00	3.781E-02	0.00	1.120E-01	0.00	1.314E-02	0.00	7.555E-03	7.346E-03	3.401E-02	3.307E-02
1 - 2	1.645E-01	0.00	1.062E-01	0.00	2.324E-02	0.00	6.398E-02	0.00	1.029E-02	0.00	3.297E-03	3.206E-03	1.094E-02	1.064E-02
2 - 3	8.523E-02	0.00	5.359E-02	0.00	1.384E-02	0.00	3.604E-02	0.00	6.647E-03	0.00	1.407E-03	1.368E-03	3.800E-03	3.695E-03
3 - 4	3.499E-02	0.00	2.528E-02	0.00	7.116E-03	0.00	1.925E-02	0.00	3.758E-03	0.00	6.533E-04	6.352E-04	1.660E-03	1.614E-03
4 - 5	1.593E-02	0.00	1.181E-02	0.00	3.338E-03	0.00	9.773E-03	0.00	1.744E-03	0.00	4.068E-04	3.955E-04	6.063E-04	5.896E-04
5 - 6	8.297E-03	0.00	5.447E-03	0.00	1.598E-03	0.00	4.555E-03	0.00	7.506E-04	0.00	2.971E-04	2.889E-04	2.971E-04	2.889E-04
6 - 7	3.807E-03	0.00	2.787E-03	0.00	6.912E-04	0.00	2.030E-03	0.00	3.636E-04	0.00	2.394E-04	2.327E-04	2.394E-04	2.327E-04
7 - 8	1.716E-03	0.00	1.370E-03	0.00	2.942E-04	0.00	8.663E-04	0.00	1.660E-04	0.00	2.342E-04	2.277E-04	2.342E-04	2.277E-04
8 - 9	7.647E-04	0.00	6.786E-04	0.00	1.583E-04	0.00	3.348E-04	0.00	1.013E-04	0.00	2.328E-04	2.263E-04	2.328E-04	2.263E-04
9 - 10	3.381E-04	0.00	3.504E-04	0.00	1.026E-04	0.00	1.498E-04	0.00	8.545E-05	0.00	2.251E-04	2.189E-04	2.251E-04	2.189E-04
10 - 11	1.624E-04	0.00	1.769E-04	0.00	8.527E-05	0.00	1.021E-04	0.00	7.608E-05	0.00	2.152E-04	2.093E-04	2.152E-04	2.093E-04
11 - 12	9.820E-05	0.00	9.984E-05	0.00	7.749E-05	0.00	8.975E-05	0.00	6.993E-05	0.00	2.135E-04	2.076E-04	2.135E-04	2.076E-04
12 - 13	7.588E-05	0.00	7.219E-05	0.00	6.950E-05	0.00	7.624E-05	0.00	6.455E-05	0.00	2.103E-04	2.044E-04	2.103E-04	2.044E-04
13 - 14	5.960E-05	0.00	6.289E-05	0.00	6.525E-05	0.00	7.319E-05	0.00	6.400E-05	0.00	1.998E-04	1.943E-04	1.998E-04	1.943E-04
14 - 15	5.387E-05	0.00	6.272E-05	0.00	6.146E-05	0.00	7.006E-05	0.00	6.043E-05	0.00	1.917E-04	1.864E-04	1.917E-04	1.864E-04
15 - 16	4.654E-05	0.00	5.946E-05	0.00	5.867E-05	0.00	6.505E-05	0.00	5.856E-05	0.00	1.812E-04	1.762E-04	1.812E-04	1.762E-04
16 - 17	3.983E-05	0.00	5.710E-05	0.00	5.711E-05	0.00	6.628E-05	0.00	5.676E-05	0.00	1.757E-04	1.708E-04	1.757E-04	1.708E-04
17 - 18	4.047E-05	0.00	5.660E-05	0.00	5.654E-05	0.00	6.426E-05	0.00	5.491E-05	0.00	1.718E-04	1.670E-04	1.718E-04	1.670E-04
18 - 19	4.235E-05	0.00	5.537E-05	0.00	5.409E-05	0.00	6.277E-05	0.00	5.382E-05	0.00	1.553E-04	1.510E-04	1.553E-04	1.510E-04
19 - 20	4.463E-05	0.00	5.514E-05	0.00	5.169E-05	0.00	6.232E-05	0.00	5.131E-05	0.00	1.224E-04	1.190E-04	1.224E-04	1.190E-04
20 - 21	4.696E-05	0.00	5.488E-05	0.00	5.142E-05	0.00	5.934E-05	0.00	4.999E-05	0.00	8.932E-05	8.685E-05	8.932E-05	8.685E-05
21 - 22	4.863E-05	0.00	5.417E-05	0.00	4.980E-05	0.00	5.878E-05	0.00	4.727E-05	0.00	6.591E-05	6.409E-05	6.591E-05	6.409E-05
22 - 23	4.830E-05	0.00	5.238E-05	0.00	4.757E-05	0.00	5.671E-05	0.00	4.394E-05	0.00	5.000E-05	4.861E-05	5.000E-05	4.861E-05
23 - 24	4.727E-05	0.00	5.325E-05	0.00	4.482E-05	0.00	5.327E-05	0.00	4.276E-05	0.00	3.891E-05	3.783E-05	3.891E-05	3.783E-05
24 - 25	4.624E-05	0.00	5.903E-05	0.00	4.327E-05	0.00	5.171E-05	0.00	3.759E-05	0.00	3.176E-05	3.088E-05	3.176E-05	3.088E-05
25 - 30	3.763E-05	0.00	4.133E-05	0.00	3.122E-05	0.00	4.285E-05	0.00	2.816E-05	0.00	1.695E-05	1.648E-05	1.695E-05	1.648E-05
30 - 35	2.284E-05	0.00	2.488E-05	0.00	1.787E-05	0.00	2.171E-05	0.00	1.577E-05	0.00	4.839E-06	4.705E-06	4.839E-06	4.705E-06
35 - 40	1.400E-05	0.00	1.553E-05	0.00	1.078E-05	0.00	1.619E-05	0.00	9.349E-06	0.00	1.273E-06	1.238E-06	1.273E-06	1.238E-06
40 - 45	8.291E-06	0.00	9.317E-06	0.00	6.444E-06	0.00	9.778E-06	0.00	5.233E-06	0.00	0.	0.	0.	0.
45 - 50	4.670E-06	0.00	5.373E-06	0.00	3.674E-06	0.00	5.640E-06	0.00	2.975E-06	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	1.140E-06	0.00	0.	0.00	1.173E-06	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.937394 MICROMETERS

FREQUENCY = 2025.360 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.496E-01	0.00	4.405E-01	0.00	8.635E-02	0.00	2.625E-01	0.00	2.534E-02	0.00	1.118E-02	1.089E-02	5.446E-02	5.307E-02
0 - 1	4.932E-01	0.00	3.365E-01	0.00	6.812E-02	0.00	1.985E-01	0.00	2.410E-02	0.00	7.628E-03	7.434E-03	3.434E-02	3.346E-02
1 - 2	2.910E-01	0.00	1.870E-01	0.00	4.186E-02	0.00	1.137E-01	0.00	1.876E-02	0.00	3.328E-03	3.244E-03	1.104E-02	1.076E-02
2 - 3	1.512E-01	0.00	9.503E-02	0.00	2.492E-02	0.00	6.432E-02	0.00	1.208E-02	0.00	1.420E-03	1.384E-03	3.637E-03	3.739E-03
3 - 4	6.225E-02	0.00	4.499E-02	0.00	1.280E-02	0.00	3.450E-02	0.00	6.782E-03	0.00	6.596E-04	6.428E-04	1.676E-03	1.633E-03
4 - 5	2.843E-02	0.00	2.071E-02	0.00	5.955E-03	0.00	1.758E-02	0.00	3.075E-03	0.00	4.107E-04	4.002E-04	6.122E-04	5.966E-04
5 - 6	1.469E-02	0.00	9.684E-03	0.00	2.782E-03	0.00	8.178E-03	0.00	1.236E-03	0.00	3.080E-04	2.923E-04	3.080E-04	2.923E-04
6 - 7	6.774E-03	0.00	4.868E-03	0.00	1.110E-03	0.00	3.596E-03	0.00	5.257E-04	0.00	2.417E-04	2.355E-04	2.417E-04	2.355E-04
7 - 8	2.986E-03	0.00	2.346E-03	0.00	3.797E-04	0.00	1.453E-03	0.00	1.647E-04	0.00	2.365E-04	2.304E-04	2.365E-04	2.304E-04
8 - 9	1.242E-03	0.00	1.096E-03	0.00	1.359E-04	0.00	4.669E-04	0.00	5.526E-05	0.00	2.350E-04	2.290E-04	2.350E-04	2.290E-04
9 - 10	4.651E-04	0.00	4.973E-04	0.00	5.715E-05	0.00	1.331E-04	0.00	3.462E-05	0.00	2.272E-04	2.215E-04	2.272E-04	2.215E-04
10 - 11	1.486E-04	0.00	1.824E-04	0.00	3.251E-05	0.00	5.439E-05	0.00	2.126E-05	0.00	2.173E-04	2.118E-04	2.173E-04	2.118E-04
11 - 12	4.550E-05	0.00	5.034E-05	0.00	2.461E-05	0.00	3.130E-05	0.00	1.344E-05	0.00	2.155E-04	2.100E-04	2.155E-04	2.100E-04
12 - 13	1.535E-05	0.00	1.473E-05	0.00	1.281E-05	0.00	1.432E-05	0.00	8.538E-06	0.00	2.123E-04	2.069E-04	2.123E-04	2.069E-04
13 - 14	6.734E-06	0.00	6.722E-06	0.00	5.867E-06	0.00	6.620E-06	0.00	5.323E-05	0.00	2.018E-04	1.966E-04	2.018E-04	1.966E-04
14 - 15	4.365E-06	0.00	4.392E-06	0.00	3.724E-06	0.00	4.252E-06	0.00	3.361E-06	0.00	1.936E-04	1.886E-04	1.936E-04	1.886E-04
15 - 16	3.033E-06	0.00	3.082E-06	0.00	2.630E-06	0.00	2.979E-06	0.00	2.383E-06	0.00	1.830E-04	1.783E-04	1.830E-04	1.783E-04
16 - 17	2.065E-06	0.00	2.229E-06	0.00	1.928E-06	0.00	2.275E-06	0.00	1.749E-06	0.00	1.773E-04	1.728E-04	1.773E-04	1.728E-04
17 - 18	1.517E-06	0.00	1.677E-06	0.00	1.448E-06	0.00	1.717E-06	0.00	1.299E-06	0.00	1.734E-04	1.690E-04	1.734E-04	1.690E-04
18 - 19	1.137E-06	0.00	1.272E-06	0.00	1.096E-06	0.00	1.334E-06	0.00	0.	0.00	1.568E-04	1.528E-04	1.568E-04	1.528E-04
19 - 20	0.	0.00	1.003E-06	0.00	0.	0.00	1.061E-06	0.00	0.	0.00	1.236E-04	1.205E-04	1.236E-04	1.205E-04
20 - 21	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	9.018E-05	8.789E-05	9.018E-05	8.789E-05
21 - 22	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.654E-05	6.485E-05	6.654E-05	6.485E-05
22 - 23	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.040E-05	4.919E-05	5.040E-05	4.919E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	3.928E-05	3.829E-05	3.928E-05	3.829E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	3.206E-05	3.125E-05	3.206E-05	3.125E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.711E-05	1.668E-05	1.711E-05	1.668E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.885E-06	4.761E-06	4.885E-06	4.761E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.286E-06	1.253E-06	1.286E-06	1.253E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.918815 MICROMETERS

FREQUENCY = 2033.010 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.534E-01	0.00	1.046E-01	0.00	1.977E-02	0.00	6.153E-02	0.00	5.866E-03	0.00	1.121E-02	1.094E-02	5.464E-02	5.329E-02
0 - 1	1.154E-01	0.00	7.862E-02	0.00	1.548E-02	0.00	4.600E-02	0.00	5.515E-03	0.00	7.653E-03	7.465E-03	3.445E-02	3.360E-02
1 - 2	6.660E-02	0.00	4.300E-02	0.00	9.432E-03	0.00	2.578E-02	0.00	4.313E-03	0.00	3.340E-03	3.257E-03	1.108E-02	1.081E-02
2 - 3	3.397E-02	0.00	2.140E-02	0.00	5.632E-03	0.00	1.434E-02	0.00	2.835E-03	0.00	1.425E-03	1.390E-03	3.850E-03	3.755E-03
3 - 4	1.387E-02	0.00	1.005E-02	0.00	2.978E-03	0.00	7.641E-03	0.00	1.698E-03	0.00	6.618E-04	6.455E-04	1.682E-03	1.640E-03
4 - 5	6.335E-03	0.00	4.667E-03	0.00	1.508E-03	0.00	3.926E-03	0.00	9.103E-04	0.00	4.120E-04	4.019E-04	6.142E-04	5.991E-04
5 6	3.315E-03	0.00	2.274E-03	0.00	8.251E-04	0.00	1.920E-03	0.00	5.171E-04	0.00	3.011E-04	2.936E-04	3.010E-04	2.936E-04
6 - 7	1.615E-03	0.00	1.233E-03	0.00	4.645E-04	0.00	9.434E-04	0.00	3.454E-04	0.00	2.425E-04	2.365E-04	2.425E-04	2.365E-04
7 - 8	8.061E-04	0.00	6.801E-04	0.00	2.902E-04	0.00	4.922E-04	0.00	2.442E-04	0.00	2.372E-04	2.314E-04	2.372E-04	2.314E-04
8 - 9	4.321E-04	0.00	3.942E-04	0.00	2.132E-04	0.00	2.752E-04	0.00	1.893E-04	0.00	2.358E-04	2.300E-04	2.358E-04	2.300E-04
9 - 10	2.565E-04	0.00	2.528E-04	0.00	1.602E-04	0.00	1.823E-04	0.00	1.501E-04	0.00	2.280E-04	2.224E-04	2.280E-04	2.224E-04
10 - 11	1.660E-04	0.00	1.688E-04	0.00	1.297E-04	0.00	1.373E-04	0.00	1.169E-04	0.00	2.180E-04	2.126E-04	2.180E-04	2.126E-04
11 - 12	1.201E-04	0.00	1.204E-04	0.00	9.972E-05	0.00	1.090E-04	0.00	8.972E-05	0.00	2.162E-04	2.109E-04	2.162E-04	2.109E-04
12 - 13	9.512E-05	0.00	9.084E-05	0.00	7.626E-05	0.00	7.981E-05	0.00	6.688E-05	0.00	2.130E-04	2.077E-04	2.130E-04	2.077E-04
13 - 14	7.025E-05	0.00	6.878E-05	0.00	5.848E-05	0.00	6.293E-05	0.00	5.248E-05	0.00	2.024E-04	1.974E-04	2.024E-04	1.974E-04
14 - 15	5.696E-05	0.00	5.375E-05	0.00	4.328E-05	0.00	4.728E-05	0.00	3.829E-05	0.00	1.942E-04	1.894E-04	1.942E-04	1.894E-04
15 - 16	4.298E-05	0.00	3.904E-05	0.00	3.208E-05	0.00	3.408E-05	0.00	2.648E-05	0.00	1.836E-04	1.791E-04	1.836E-04	1.791E-04
16 - 17	3.042E-05	0.00	2.862E-05	0.00	2.387E-05	0.00	2.682E-05	0.00	2.115E-05	0.00	1.779E-04	1.736E-04	1.779E-04	1.736E-04
17 - 18	2.232E-05	0.00	2.150E-05	0.00	1.801E-05	0.00	1.986E-05	0.00	1.559E-05	0.00	1.740E-04	1.697E-04	1.740E-04	1.697E-04
18 - 19	1.586E-05	0.00	1.571E-05	0.00	1.307E-05	0.00	1.478E-05	0.00	1.161E-05	0.00	1.573E-04	1.534E-04	1.573E-04	1.534E-04
19 - 20	1.114E-05	0.00	1.158E-05	0.00	9.449E-06	0.00	1.115E-05	0.00	8.430E-06	0.00	1.240E-04	1.210E-04	1.240E-04	1.210E-04
20 - 21	8.007E-06	0.00	8.419E-06	0.00	7.085E-06	0.00	8.085E-06	0.00	6.264E-06	0.00	9.048E-05	8.825E-05	9.048E-05	8.825E-05
21 - 22	5.738E-06	0.00	6.298E-06	0.00	5.192E-06	0.00	6.134E-06	0.00	4.542E-06	0.00	6.677E-05	6.512E-05	6.677E-05	6.512E-05
22 - 23	4.093E-06	0.00	4.543E-06	0.00	3.789E-06	0.00	4.558E-06	0.00	3.270E-06	0.00	5.064E-05	4.940E-05	5.064E-05	4.940E-05
23 - 24	2.987E-06	0.00	3.480E-06	0.00	2.767E-06	0.00	3.302E-06	0.00	2.494E-06	0.00	3.941E-05	3.844E-05	3.941E-05	3.844E-05
24 - 25	2.215E-06	0.00	2.470E-06	0.00	2.094E-06	0.00	2.464E-06	0.00	1.748E-06	0.00	3.217E-05	3.138E-05	3.217E-05	3.138E-05
25 - 30	0.	0.00	1.105E-06	0.00	0.	0.00	1.113E-06	0.00	0.	0.00	1.717E-05	1.674E-05	1.717E-05	1.674E-05
30 - 35	0.	0.00	0.	0.00	1.773E-05	0.00	0.	0.00	2.647E-06	0.00	4.901E-06	4.781E-06	4.901E-06	4.781E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.296E-06	1.258E-06	1.296E-06	1.258E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.885747 MICROMETERS

FREQUENCY = 2046.770 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.302E+00	0.00	1.535E+00	0.00	2.622E-01	0.00	8.825E-01	0.00	6.760E-02	0.00	1.126E-02	1.102E-02	5.497E-02	5.369E-02
0 - 1	1.735E+00	0.00	1.160E+00	0.00	2.046E-01	0.00	6.578E-01	0.00	6.519E-02	0.00	7.699E-03	7.520E-03	3.466E-02	3.385E-02
1 - 2	9.928E-01	0.00	6.318E-01	0.00	1.227E-01	0.00	3.640E-01	0.00	5.381E-02	0.00	3.360E-03	3.281E-03	1.115E-02	1.089E-02
2 - 3	5.007E-01	0.00	3.087E-01	0.00	7.119E-02	0.00	1.980E-01	0.00	3.192E-02	0.00	1.433E-03	1.400E-03	3.873E-03	3.783E-03
3 - 4	1.992E-01	0.00	1.405E-01	0.00	3.523E-02	0.00	1.022E-01	0.00	1.737E-02	0.00	6.657E-04	6.503E-04	1.692E-03	1.652E-03
4 - 5	8.685E-02	0.00	6.194E-02	0.00	1.564E-02	0.00	4.977E-02	0.00	7.586E-03	0.00	4.145E-04	4.049E-04	6.179E-04	6.035E-04
5 - 6	4.274E-02	0.00	2.772E-02	0.00	7.008E-03	0.00	2.193E-02	0.00	3.082E-03	0.00	3.028E-04	2.957E-04	3.028E-04	2.957E-04
6 - 7	1.876E-02	0.00	1.338E-02	0.00	2.770E-03	0.00	9.088E-03	0.00	1.304E-03	0.00	2.439E-04	2.382E-04	2.439E-04	2.382E-04
7 - 8	7.837E-03	0.00	6.184E-03	0.00	1.021E-03	0.00	3.512E-03	0.00	5.063E-04	0.00	2.387E-04	2.331E-04	2.387E-04	2.331E-04
8 - 9	3.145E-03	0.00	2.731E-03	0.00	4.489E-04	0.00	1.153E-03	0.00	2.506E-04	0.00	2.372E-04	2.317E-04	2.372E-04	2.317E-04
9 - 10	1.179E-03	0.00	1.215E-03	0.00	2.299E-04	0.00	3.948E-04	0.00	1.726E-04	0.00	2.294E-04	2.240E-04	2.294E-04	2.240E-04
10 - 11	4.226E-04	0.00	4.767E-04	0.00	1.524E-04	0.00	2.050E-04	0.00	1.217E-04	0.00	2.193E-04	2.142E-04	2.193E-04	2.142E-04
11 - 12	1.752E-04	0.00	1.805E-04	0.00	1.123E-04	0.00	1.397E-04	0.00	8.739E-05	0.00	2.175E-04	2.125E-04	2.175E-04	2.125E-04
12 - 13	9.422E-05	0.00	8.935E-05	0.00	7.516E-05	0.00	8.677E-05	0.00	6.236E-05	0.00	2.143E-04	2.093E-04	2.143E-04	2.093E-04
13 - 14	5.602E-05	0.00	5.764E-05	0.00	5.090E-05	0.00	5.998E-05	0.00	4.656E-05	0.00	2.036E-04	1.989E-04	2.036E-04	1.989E-04
14 - 15	3.944E-05	0.00	4.296E-05	0.00	3.632E-05	0.00	4.363E-05	0.00	3.347E-05	0.00	1.954E-04	1.908E-04	1.954E-04	1.908E-04
15 - 16	2.635E-05	0.00	3.074E-05	0.00	2.660E-05	0.00	3.150E-05	0.00	2.516E-05	0.00	1.847E-04	1.804E-04	1.847E-04	1.804E-04
16 - 17	1.717E-05	0.00	2.245E-05	0.00	1.977E-05	0.00	2.484E-05	0.00	1.891E-05	0.00	1.790E-04	1.748E-04	1.790E-04	1.748E-04
17 - 18	1.269E-05	0.00	1.701E-05	0.00	1.499E-05	0.00	1.881E-05	0.00	1.411E-05	0.00	1.751E-04	1.710E-04	1.751E-04	1.710E-04
18 - 19	9.646E-06	0.00	1.284E-05	0.00	1.112E-05	0.00	1.433E-05	0.00	1.065E-05	0.00	1.582E-04	1.546E-04	1.582E-04	1.546E-04
19 - 20	7.377E-06	0.00	9.922E-06	0.00	8.335E-06	0.00	1.100E-05	0.00	7.866E-06	0.00	1.248E-04	1.219E-04	1.248E-04	1.219E-04
20 - 21	5.852E-06	0.00	7.637E-06	0.00	6.449E-06	0.00	8.240E-06	0.00	5.916E-06	0.00	9.102E-05	8.891E-05	9.102E-05	8.891E-05
21 - 22	4.732E-06	0.00	6.055E-06	0.00	4.926E-06	0.00	6.383E-06	0.00	4.398E-06	0.00	6.717E-05	6.561E-05	6.717E-05	6.561E-05
22 - 23	3.801E-06	0.00	4.685E-06	0.00	3.738E-06	0.00	4.863E-06	0.00	3.248E-06	0.00	5.095E-05	4.976E-05	5.095E-05	4.976E-05
23 - 24	3.107E-06	0.00	3.796E-06	0.00	2.847E-06	0.00	3.736E-06	0.00	2.485E-06	0.00	3.965E-05	3.873E-05	3.965E-05	3.873E-05
24 - 25	2.574E-06	0.00	2.935E-06	0.00	2.253E-06	0.00	3.016E-06	0.00	1.814E-06	0.00	3.236E-05	3.161E-05	3.236E-05	3.161E-05
25 - 30	1.393E-06	0.00	1.559E-06	0.00	1.033E-06	0.00	1.537E-06	0.00	0.	0.00	1.727E-05	1.687E-05	1.727E-05	1.687E-05
30 - 35	0.	0.00	0.	0.00	2.837E-06	0.00	0.	0.00	4.166E-06	0.00	4.931E-06	4.816E-06	4.931E-06	4.816E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.298E-06	1.267E-06	1.298E-06	1.267E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.863482 MICROMETERS

FREQUENCY = 2056.140 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR	AEROSOL	AEROSOL HAZY	
( )	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.140E-01	0.00	7.899E-02	0.00	2.216E-02	0.00	4.974E-02	0.00	1.314E-02	0.00	1.133E-02	1.107E-02	5.519E-02	5.396E-02
0 - 1	8.752E-02	0.00	6.137E-02	0.00	1.843E-02	0.00	3.876E-02	0.00	1.191E-02	0.00	7.730E-03	7.558E-03	3.480E-02	3.402E-02
1 - 2	5.234E-02	0.00	3.591E-02	0.00	1.281E-02	0.00	2.380E-02	0.00	9.292E-03	0.00	3.373E-03	3.298E-03	1.119E-02	1.094E-02
2 - 3	2.876E-02	0.00	2.002E-02	0.00	8.941E-03	0.00	1.488E-02	0.00	6.374E-03	0.00	1.439E-03	1.407E-03	3.835E-03	3.802E-03
3 - 4	1.396E-02	0.00	1.121E-02	0.00	6.054E-03	0.00	9.355E-03	0.00	5.005E-03	0.00	6.684E-04	6.535E-04	1.699E-03	1.661E-03
4 - 5	7.815E-03	0.00	6.558E-03	0.00	4.151E-03	0.00	5.900E-03	0.00	3.542E-03	0.00	4.162E-04	4.069E-04	6.204E-04	6.065E-04
5 - 6	4.994E-03	0.00	4.243E-03	0.00	2.936E-03	0.00	3.857E-03	0.00	2.560E-03	0.00	3.040E-04	2.972E-04	3.040E-04	2.972E-04
6 - 7	3.198E-03	0.00	2.949E-03	0.00	2.129E-03	0.00	2.551E-03	0.00	1.875E-03	0.00	2.449E-04	2.394E-04	2.449E-04	2.394E-04
7 - 8	2.139E-03	0.00	2.049E-03	0.00	1.543E-03	0.00	1.787E-03	0.00	1.386E-03	0.00	2.396E-04	2.343E-04	2.396E-04	2.343E-04
8 - 9	1.506E-03	0.00	1.442E-03	0.00	1.159E-03	0.00	1.279E-03	0.00	1.029E-03	0.00	2.382E-04	2.329E-04	2.382E-04	2.329E-04
9 - 10	1.067E-03	0.00	1.060E-03	0.00	8.457E-04	0.00	9.311E-04	0.00	7.781E-04	0.00	2.303E-04	2.252E-04	2.303E-04	2.252E-04
10 - 11	7.848E-04	0.00	7.860E-04	0.00	6.519E-04	0.00	6.969E-04	0.00	6.011E-04	0.00	2.202E-04	2.153E-04	2.202E-04	2.153E-04
11 - 12	5.691E-04	0.00	5.807E-04	0.00	4.943E-04	0.00	5.500E-04	0.00	4.715E-04	0.00	2.184E-04	2.135E-04	2.184E-04	2.135E-04
12 - 13	4.309E-04	0.00	4.289E-04	0.00	3.816E-04	0.00	4.095E-04	0.00	3.659E-04	0.00	2.151E-04	2.103E-04	2.151E-04	2.103E-04
13 - 14	2.996E-04	0.00	3.180E-04	0.00	2.969E-04	0.00	3.286E-04	0.00	2.948E-04	0.00	2.045E-04	1.999E-04	2.045E-04	1.999E-04
14 - 15	2.293E-04	0.00	2.484E-04	0.00	2.256E-04	0.00	2.556E-04	0.00	2.291E-04	0.00	1.962E-04	1.918E-04	1.962E-04	1.918E-04
15 - 16	1.642E-04	0.00	1.834E-04	0.00	1.734E-04	0.00	1.953E-04	0.00	1.854E-04	0.00	1.854E-04	1.813E-04	1.854E-04	1.813E-04
16 - 17	1.130E-04	0.00	1.389E-04	0.00	1.352E-04	0.00	1.611E-04	0.00	1.481E-04	0.00	1.797E-04	1.757E-04	1.797E-04	1.757E-04
17 - 18	8.406E-05	0.00	1.100E-04	0.00	1.073E-04	0.00	1.293E-04	0.00	1.160E-04	0.00	1.758E-04	1.718E-04	1.758E-04	1.718E-04
18 - 19	6.351E-05	0.00	8.779E-05	0.00	8.396E-05	0.00	1.029E-04	0.00	9.089E-05	0.00	1.589E-04	1.553E-04	1.589E-04	1.553E-04
19 - 20	4.972E-05	0.00	7.130E-05	0.00	6.663E-05	0.00	8.104E-05	0.00	6.928E-05	0.00	1.253E-04	1.225E-04	1.253E-04	1.225E-04
20 - 21	4.084E-05	0.00	5.741E-05	0.00	5.311E-05	0.00	6.198E-05	0.00	5.282E-05	0.00	9.139E-05	8.935E-05	9.139E-05	8.935E-05
21 - 22	3.440E-05	0.00	4.690E-05	0.00	4.156E-05	0.00	4.777E-05	0.00	3.970E-05	0.00	6.744E-05	6.593E-05	6.744E-05	6.593E-05
22 - 23	2.936E-05	0.00	3.704E-05	0.00	3.213E-05	0.00	3.633E-05	0.00	2.966E-05	0.00	5.115E-05	5.001E-05	5.115E-05	5.001E-05
23 - 24	2.518E-05	0.00	2.970E-05	0.00	2.444E-05	0.00	2.793E-05	0.00	2.219E-05	0.00	3.981E-05	3.892E-05	3.981E-05	3.892E-05
24 - 25	2.124E-05	0.00	2.289E-05	0.00	1.920E-05	0.00	2.196E-05	0.00	1.588E-05	0.00	3.249E-05	3.177E-05	3.249E-05	3.177E-05
25 - 30	1.196E-05	0.00	1.235E-05	0.00	8.967E-06	0.00	1.100E-05	0.00	7.122E-06	0.00	1.734E-05	1.695E-05	1.734E-05	1.695E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	3.281E-06	0.00	0.	0.00	4.951E-06	4.840E-06	4.951E-06	4.840E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.303E-06	1.274E-06	1.303E-06	1.274E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.836151 MICROMETERS

FREQUENCY = 2067.760 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$		
0	7.914E-01	0.00	5.285E-01	0.00	1.117E-01	0.00	3.100E-01	0.00	5.538E-02	0.00	1.138E-02	1.114E-02	5.546E-02	5.429E-02		
0 - 1	6.227E-01	0.00	4.185E-01	0.00	9.341E-02	0.00	2.444E-01	0.00	5.130E-02	0.00	7.769E-03	7.605E-03	3.497E-02	3.423E-02		
1 - 2	3.944E-01	0.00	2.556E-01	0.00	6.579E-02	0.00	1.535E-01	0.00	4.173E-02	0.00	3.390E-03	3.318E-03	1.125E-02	1.101E-02		
2 - 3	2.252E-01	0.00	1.439E-01	0.00	4.612E-02	0.00	9.674E-02	0.00	3.150E-02	0.00	1.446E-03	1.416E-03	3.908E-03	3.825E-03		
3 - 4	1.059E-01	0.00	7.800E-02	0.00	3.039E-02	0.00	5.999E-02	0.00	2.302E-02	0.00	6.718E-04	6.576E-04	1.707E-03	1.671E-03		
4 - 5	5.573E-02	0.00	4.263E-02	0.00	1.988E-02	0.00	3.626E-02	0.00	1.617E-02	0.00	4.183E-04	4.094E-04	6.235E-04	6.103E-04		
5 - 6	3.362E-02	0.00	2.512E-02	0.00	1.377E-02	0.00	2.184E-02	0.00	1.181E-02	0.00	3.055E-04	2.990E-04	3.055E-04	2.990E-04		
6 - 7	1.945E-02	0.00	1.627E-02	0.00	9.801E-03	0.00	1.334E-02	0.00	8.974E-03	0.00	2.461E-04	2.409E-04	2.461E-04	2.409E-04		
7 - 8	1.170E-02	0.00	1.062E-02	0.00	7.182E-03	0.00	8.787E-03	0.00	6.920E-03	0.00	2.408E-04	2.357E-04	2.408E-04	2.357E-04		
8 - 9	7.531E-03	0.00	7.123E-03	0.00	5.596E-03	0.00	6.088E-03	0.00	5.367E-03	0.00	2.394E-04	2.343E-04	2.394E-04	2.343E-04		
9 - 10	5.051E-03	0.00	5.154E-03	0.00	4.256E-03	0.00	4.531E-03	0.00	4.130E-03	0.00	2.314E-04	2.266E-04	2.314E-04	2.266E-04		
10 - 11	3.700E-03	0.00	3.801E-03	0.00	3.405E-03	0.00	3.466E-03	0.00	3.196E-03	0.00	2.213E-04	2.166E-04	2.213E-04	2.166E-04		
11 - 12	2.772E-03	0.00	2.887E-03	0.00	2.593E-03	0.00	2.732E-03	0.00	2.519E-03	0.00	2.195E-04	2.149E-04	2.195E-04	2.149E-04		
12 - 13	2.210E-03	0.00	2.238E-03	0.00	2.015E-03	0.00	2.041E-03	0.00	1.965E-03	0.00	2.162E-04	2.116E-04	2.162E-04	2.116E-04		
13 - 14	1.640E-03	0.00	1.709E-03	0.00	1.582E-03	0.00	1.640E-03	0.00	1.594E-03	0.00	2.055E-04	2.011E-04	2.055E-04	2.011E-04		
14 - 15	1.335E-03	0.00	1.337E-03	0.00	1.211E-03	0.00	1.281E-03	0.00	1.245E-03	0.00	1.971E-04	1.930E-04	1.971E-04	1.930E-04		
15 - 16	1.018E-03	0.00	9.906E-04	0.00	9.398E-04	0.00	9.880E-04	0.00	1.018E-03	0.00	1.863E-04	1.824E-04	1.863E-04	1.824E-04		
16 - 17	7.317E-04	0.00	7.538E-04	0.00	7.393E-04	0.00	8.212E-04	0.00	8.220E-04	0.00	1.806E-04	1.768E-04	1.806E-04	1.768E-04		
17 - 18	5.399E-04	0.00	6.006E-04	0.00	5.939E-04	0.00	6.643E-04	0.00	6.498E-04	0.00	1.766E-04	1.729E-04	1.766E-04	1.729E-04		
18 - 19	3.936E-04	0.00	4.810E-04	0.00	4.685E-04	0.00	5.321E-04	0.00	5.139E-04	0.00	1.597E-04	1.563E-04	1.597E-04	1.563E-04		
19 - 20	2.985E-04	0.00	3.898E-04	0.00	3.746E-04	0.00	4.218E-04	0.00	3.949E-04	0.00	1.259E-04	1.232E-04	1.259E-04	1.232E-04		
20 - 21	2.383E-04	0.00	3.139E-04	0.00	2.938E-04	0.00	3.238E-04	0.00	3.032E-04	0.00	9.185E-05	8.991E-05	9.185E-05	8.991E-05		
21 - 22	1.958E-04	0.00	2.558E-04	0.00	2.357E-04	0.00	2.505E-04	0.00	2.293E-04	0.00	6.778E-05	6.634E-05	6.778E-05	6.634E-05		
22 - 23	1.647E-04	0.00	2.012E-04	0.00	1.828E-04	0.00	1.911E-04	0.00	1.724E-04	0.00	5.141E-05	5.032E-05	5.141E-05	5.032E-05		
23 - 24	1.403E-04	0.00	1.601E-04	0.00	1.395E-04	0.00	1.469E-04	0.00	1.297E-04	0.00	4.001E-05	3.916E-05	4.001E-05	3.916E-05		
24 - 25	1.175E-04	0.00	1.231E-04	0.00	1.048E-04	0.00	1.149E-04	0.00	9.337E-05	0.00	3.266E-05	3.196E-05	3.266E-05	3.196E-05		
25 - 30	6.401E-05	0.00	6.470E-05	0.00	5.117E-05	0.00	5.628E-05	0.00	4.134E-05	0.00	1.743E-05	1.706E-05	1.743E-05	1.706E-05		
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.595E-05	0.00	0.	0.00	4.976E-06	4.870E-06	4.976E-06	4.870E-06		
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.309E-06	1.282E-06	1.309E-06	1.282E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 4.788492 MICROMETERS

FREQUENCY = 2088.340 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.439E-01	0.00	2.994E-01	0.00	5.674E-02	0.00	1.758E-01	0.00	1.877E-02	0.00	1.148E-02	1.126E-02	5.595E-02	5.488E-02
0 - 1	3.343E-01	0.00	2.265E-01	0.00	4.492E-02	0.00	1.313E-01	0.00	1.730E-02	0.00	7.837E-03	7.687E-03	3.528E-02	3.460E-02
1 - 2	1.914E-01	0.00	1.239E-01	0.00	2.781E-02	0.00	7.369E-02	0.00	1.371E-02	0.00	3.420E-03	3.354E-03	1.135E-02	1.113E-02
2 - 3	9.759E-02	0.00	6.228E-02	0.00	1.732E-02	0.00	4.153E-02	0.00	9.830E-03	0.00	1.459E-03	1.431E-03	3.942E-03	3.867E-03
3 - 4	4.057E-02	0.00	3.028E-02	0.00	1.036E-02	0.00	2.302E-02	0.00	6.321E-03	0.00	6.777E-04	6.647E-04	1.722E-03	1.689E-03
4 - 5	1.920E-02	0.00	1.533E-02	0.00	6.007E-03	0.00	1.294E-02	0.00	4.450E-03	0.00	4.220E-04	4.139E-04	6.290E-04	6.169E-04
5 - 6	1.062E-02	0.00	8.783E-03	0.00	4.725E-03	0.00	7.654E-03	0.00	3.306E-03	0.00	3.082E-04	3.023E-04	3.082E-04	3.023E-04
6 - 7	5.860E-03	0.00	6.002E-03	0.00	3.976E-03	0.00	5.225E-03	0.00	3.039E-03	0.00	2.483E-04	2.435E-04	2.483E-04	2.435E-04
7 - 8	3.527E-03	0.00	4.610E-03	0.00	3.678E-03	0.00	4.088E-03	0.00	3.815E-03	0.00	2.429E-04	2.383E-04	2.429E-04	2.383E-04
8 - 9	2.413E-03	0.00	3.921E-03	0.00	4.310E-03	0.00	3.875E-03	0.00	4.560E-03	0.00	2.415E-04	2.368E-04	2.415E-04	2.368E-04
9 - 10	1.674E-03	0.00	3.547E-03	0.00	5.020E-03	0.00	4.349E-03	0.00	6.445E-03	0.00	2.335E-04	2.290E-04	2.335E-04	2.290E-04
10 - 11	1.625E-03	0.00	3.468E-03	0.00	5.897E-03	0.00	5.004E-03	0.00	8.406E-03	0.00	2.232E-04	2.190E-04	2.232E-04	2.190E-04
11 - 12	1.486E-03	0.00	3.624E-03	0.00	6.633E-03	0.00	5.722E-03	0.00	1.009E-02	0.00	2.214E-04	2.172E-04	2.214E-04	2.172E-04
12 - 13	1.359E-03	0.00	3.828E-03	0.00	7.040E-03	0.00	6.173E-03	0.00	1.070E-02	0.00	2.181E-04	2.139E-04	2.181E-04	2.139E-04
13 - 14	1.209E-03	0.00	4.020E-03	0.00	6.977E-03	0.00	6.263E-03	0.00	1.032E-02	0.00	2.073E-04	2.033E-04	2.073E-04	2.033E-04
14 - 15	1.097E-03	0.00	4.001E-03	0.00	6.575E-03	0.00	6.196E-03	0.00	9.776E-03	0.00	1.989E-04	1.951E-04	1.989E-04	1.951E-04
15 - 16	9.602E-04	0.00	3.828E-03	0.00	6.135E-03	0.00	6.055E-03	0.00	9.617E-03	0.00	1.880E-04	1.844E-04	1.880E-04	1.844E-04
16 - 17	9.881E-04	0.00	3.683E-03	0.00	5.663E-03	0.00	5.825E-03	0.00	8.841E-03	0.00	1.822E-04	1.787E-04	1.822E-04	1.787E-04
17 - 18	1.146E-03	0.00	3.695E-03	0.00	5.210E-03	0.00	5.560E-03	0.00	7.667E-03	0.00	1.782E-04	1.748E-04	1.782E-04	1.748E-04
18 - 19	1.399E-03	0.00	3.737E-03	0.00	4.740E-03	0.00	4.972E-03	0.00	6.506E-03	0.00	1.611E-04	1.580E-04	1.611E-04	1.580E-04
19 - 20	1.719E-03	0.00	3.583E-03	0.00	4.308E-03	0.00	4.208E-03	0.00	5.311E-03	0.00	1.270E-04	1.246E-04	1.270E-04	1.246E-04
20 - 21	1.883E-03	0.00	3.292E-03	0.00	3.699E-03	0.00	3.443E-03	0.00	4.230E-03	0.00	9.266E-05	9.088E-05	9.266E-05	9.088E-05
21 - 22	1.945E-03	0.00	2.921E-03	0.00	3.099E-03	0.00	2.728E-03	0.00	3.330E-03	0.00	6.837E-05	6.707E-05	6.837E-05	6.707E-05
22 - 23	1.943E-03	0.00	2.445E-03	0.00	2.524E-03	0.00	2.138E-03	0.00	2.602E-03	0.00	5.186E-05	5.087E-05	5.186E-05	5.087E-05
23 - 24	1.849E-03	0.00	1.977E-03	0.00	1.991E-03	0.00	1.718E-03	0.00	1.960E-03	0.00	4.036E-05	3.959E-05	4.036E-05	3.959E-05
24 - 25	1.639E-03	0.00	1.590E-03	0.00	1.609E-03	0.00	1.371E-03	0.00	1.448E-03	0.00	3.294E-05	3.231E-05	3.294E-05	3.231E-05
25 - 30	9.276E-04	0.00	8.603E-04	0.00	7.916E-04	0.00	6.760E-04	0.00	6.365E-04	0.00	1.724E-05	1.758E-05	1.724E-05	1.758E-05
30 - 35	0.	0.00	0.	0.00	1.117E-06	0.00	1.935E-04	0.00	1.231E-06	0.00	5.019E-06	4.923E-06	5.019E-06	4.923E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.321E-06	1.296E-06	1.321E-06	1.296E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.759027 MICROMETERS

FREQUENCY = 2101.270 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR	AEROSOL HAZY		
H(km)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.441E-01	0.00	1.050E-01	0.00	3.219E-02	0.00	6.949E-02	0.00	1.804E-02	0.00	1.155E-02	1.134E-02	5.626E-02	5.525E-02
0 - 1	1.135E-01	0.00	8.336E-02	0.00	2.774E-02	0.00	5.554E-02	0.00	1.724E-02	0.00	7.880E-03	7.739E-03	3.547E-02	3.484E-02
1 - 2	7.218E-02	0.00	5.184E-02	0.00	2.105E-02	0.00	3.674E-02	0.00	1.540E-02	0.00	3.439E-03	3.377E-03	1.141E-02	1.121E-02
2 - 3	4.317E-02	0.00	3.217E-02	0.00	1.666E-02	0.00	2.553E-02	0.00	1.332E-02	0.00	1.467E-03	1.441E-03	3.964E-03	3.893E-03
3 - 4	2.448E-02	0.00	2.189E-02	0.00	1.340E-02	0.00	1.857E-02	0.00	1.139E-02	0.00	6.814E-04	6.692E-04	1.732E-03	1.701E-03
4 - 5	1.664E-02	0.00	1.503E-02	0.00	1.102E-02	0.00	1.408E-02	0.00	9.852E-03	0.00	4.243E-04	4.167E-04	6.324E-04	6.211E-04
5 - 6	1.300E-02	0.00	1.217E-02	0.00	9.724E-03	0.00	1.156E-02	0.00	8.651E-03	0.00	3.099E-04	3.044E-04	3.099E-04	3.044E-04
6 - 7	1.047E-02	0.00	1.055E-02	0.00	8.704E-03	0.00	9.602E-03	0.00	7.761E-03	0.00	2.497E-04	2.452E-04	2.497E-04	2.452E-04
7 - 8	8.853E-03	0.00	9.119E-03	0.00	7.785E-03	0.00	8.414E-03	0.00	7.249E-03	0.00	2.443E-04	2.399E-04	2.443E-04	2.399E-04
8 - 9	7.768E-03	0.00	7.978E-03	0.00	7.290E-03	0.00	7.518E-03	0.00	6.797E-03	0.00	2.428E-04	2.385E-04	2.428E-04	2.385E-04
9 - 10	6.684E-03	0.00	7.095E-03	0.00	6.589E-03	0.00	6.818E-03	0.00	6.781E-03	0.00	2.348E-04	2.306E-04	2.348E-04	2.306E-04
10 - 11	5.924E-03	0.00	6.379E-03	0.00	6.364E-03	0.00	6.333E-03	0.00	6.816E-03	0.00	2.245E-04	2.205E-04	2.245E-04	2.205E-04
11 - 12	5.111E-03	0.00	5.713E-03	0.00	5.992E-03	0.00	6.163E-03	0.00	6.760E-03	0.00	2.227E-04	2.187E-04	2.227E-04	2.187E-04
12 - 13	4.547E-03	0.00	5.056E-03	0.00	5.643E-03	0.00	5.642E-03	0.00	6.367E-03	0.00	2.193E-04	2.154E-04	2.193E-04	2.154E-04
13 - 14	3.685E-03	0.00	4.554E-03	0.00	5.247E-03	0.00	5.386E-03	0.00	5.968E-03	0.00	2.084E-04	2.047E-04	2.084E-04	2.047E-04
14 - 15	3.261E-03	0.00	4.295E-03	0.00	4.698E-03	0.00	4.951E-03	0.00	5.369E-03	0.00	2.000E-04	1.964E-04	2.000E-04	1.964E-04
15 - 16	2.709E-03	0.00	3.825E-03	0.00	4.220E-03	0.00	4.429E-03	0.00	4.986E-03	0.00	1.890E-04	1.856E-04	1.890E-04	1.856E-04
16 - 17	2.225E-03	0.00	3.447E-03	0.00	3.798E-03	0.00	4.191E-03	0.00	4.464E-03	0.00	1.832E-04	1.799E-04	1.832E-04	1.799E-04
17 - 18	2.089E-03	0.00	3.209E-03	0.00	3.448E-03	0.00	3.812E-03	0.00	3.907E-03	0.00	1.792E-04	1.760E-04	1.792E-04	1.760E-04
18 - 19	2.025E-03	0.00	2.955E-03	0.00	3.039E-03	0.00	3.497E-03	0.00	3.382E-03	0.00	1.620E-04	1.591E-04	1.620E-04	1.591E-04
19 - 20	1.949E-03	0.00	2.698E-03	0.00	2.661E-03	0.00	2.988E-03	0.00	2.821E-03	0.00	1.277E-04	1.254E-04	1.277E-04	1.254E-04
20 - 21	1.853E-03	0.00	2.369E-03	0.00	2.318E-03	0.00	2.512E-03	0.00	2.342E-03	0.00	9.317E-05	9.150E-05	9.317E-05	9.150E-05
21 - 22	1.710E-03	0.00	2.112E-03	0.00	1.953E-03	0.00	2.137E-03	0.00	1.892E-03	0.00	6.875E-05	6.752E-05	6.875E-05	6.752E-05
22 - 23	1.520E-03	0.00	1.772E-03	0.00	1.604E-03	0.00	1.768E-03	0.00	1.500E-03	0.00	5.215E-05	5.122E-05	5.215E-05	5.122E-05
23 - 24	1.342E-03	0.00	1.509E-03	0.00	1.285E-03	0.00	1.433E-03	0.00	1.201E-03	0.00	4.058E-05	3.986E-05	4.058E-05	3.986E-05
24 - 25	1.120E-03	0.00	1.196E-03	0.00	1.050E-03	0.00	1.178E-03	0.00	8.947E-04	0.00	3.312E-05	3.253E-05	3.312E-05	3.253E-05
25 - 30	6.137E-04	0.00	6.648E-04	0.00	5.121E-04	0.00	6.386E-04	0.00	4.284E-04	0.00	1.768E-05	1.736E-05	1.768E-05	1.736E-05
30 - 35	1.934E-04	0.00	2.242E-04	0.00	1.363E-04	0.00	1.839E-04	0.00	1.117E-04	0.00	5.047E-06	4.957E-06	5.047E-06	4.957E-06
35 - 40	7.524E-05	0.00	8.878E-05	0.00	4.992E-05	0.00	9.445E-05	0.00	3.937E-05	0.00	1.328E-06	1.304E-06	1.328E-06	1.304E-06
40 - 45	3.326E-05	0.00	3.987E-05	0.00	2.260E-05	0.00	4.320E-05	0.00	1.627E-05	0.00	0.	0.	0.	0.
45 - 50	1.595E-05	0.00	1.962E-05	0.00	1.141E-05	0.00	2.114E-05	0.00	8.258E-06	0.00	0.	0.	0.	0.
50 - 70	2.266E-06	0.00	2.708E-06	0.00	0.	0.00	2.791E-06	0.00	1.734E-06	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.742753 MICROMETERS

FREQUENCY = 2108.480 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL		HAZY
HT(KM)	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.029E-02	0.00	4.464E-02	0.00	1.720E-02	0.00	3.096E-02	0.00	1.186E-02	0.00	1.158E-02	1.138E-02	5.643E-02	5.546E-02
0 - 1	4.742E-02	0.00	3.579E-02	0.00	1.474E-02	0.00	2.497E-02	0.00	1.042E-02	0.00	7.904E-03	7.768E-03	3.558E-02	3.497E-02
1 - 2	3.003E-02	0.00	2.257E-02	0.00	1.279E-02	0.00	1.665E-02	0.00	8.412E-03	0.00	3.449E-03	3.390E-03	1.145E-02	1.125E-02
2 - 3	1.815E-02	0.00	1.433E-02	0.00	8.155E-03	0.00	1.154E-02	0.00	6.738E-03	0.00	1.472E-03	1.446E-03	3.976E-03	3.908E-03
3 - 4	1.045E-02	0.00	9.409E-03	0.00	6.255E-03	0.00	8.209E-03	0.00	5.059E-03	0.00	6.835E-04	6.717E-04	1.737E-03	1.707E-03
4 - 5	6.836E-03	0.00	6.624E-03	0.00	4.623E-03	0.00	6.061E-03	0.00	4.113E-03	0.00	4.256E-04	4.182E-04	6.344E-04	6.234E-04
5 - 6	4.951E-03	0.00	5.160E-03	0.00	4.109E-03	0.00	4.818E-03	0.00	3.318E-03	0.00	3.108E-04	3.055E-04	3.108E-04	3.055E-04
6 - 7	3.685E-03	0.00	4.347E-03	0.00	3.719E-03	0.00	4.060E-03	0.00	3.026E-03	0.00	2.504E-04	2.461E-04	2.504E-04	2.461E-04
7 - 8	2.866E-03	0.00	3.661E-03	0.00	3.569E-03	0.00	3.662E-03	0.00	3.696E-03	0.00	2.450E-04	2.408E-04	2.450E-04	2.408E-04
8 - 9	2.343E-03	0.00	3.641E-03	0.00	4.295E-03	0.00	3.793E-03	0.00	4.642E-03	0.00	2.435E-04	2.393E-04	2.435E-04	2.393E-04
9 - 10	2.052E-03	0.00	3.634E-03	0.00	5.437E-03	0.00	4.602E-03	0.00	7.273E-03	0.00	2.355E-04	2.314E-04	2.355E-04	2.314E-04
10 - 11	1.955E-03	0.00	3.972E-03	0.00	7.284E-03	0.00	5.947E-03	0.00	1.103E-02	0.00	2.252E-04	2.213E-04	2.252E-04	2.213E-04
11 - 12	1.978E-03	0.00	4.755E-03	0.00	9.687E-03	0.00	7.923E-03	0.00	1.589E-02	0.00	2.233E-04	2.195E-04	2.233E-04	2.195E-04
12 - 13	2.079E-03	0.00	5.934E-03	0.00	1.246E-02	0.00	1.023E-02	0.00	2.063E-02	0.00	2.200E-04	2.162E-04	2.200E-04	2.162E-04
13 - 14	2.198E-03	0.00	7.580E-03	0.00	1.522E-02	0.00	1.265E-02	0.00	2.468E-02	0.00	2.091E-04	2.055E-04	2.091E-04	2.055E-04
14 - 15	2.443E-03	0.00	9.384E-03	0.00	1.787E-02	0.00	1.549E-02	0.00	2.924E-02	0.00	2.006E-04	1.971E-04	2.006E-04	1.971E-04
15 - 16	2.708E-03	0.00	1.129E-02	0.00	2.090E-02	0.00	1.879E-02	0.00	3.610E-02	0.00	1.896E-04	1.863E-04	1.896E-04	1.863E-04
16 - 17	3.609E-03	0.00	1.363E-02	0.00	2.419E-02	0.00	2.239E-02	0.00	4.153E-02	0.00	1.838E-04	1.806E-04	1.838E-04	1.806E-04
17 - 18	5.415E-03	0.00	1.712E-02	0.00	2.777E-02	0.00	2.649E-02	0.00	4.478E-02	0.00	1.797E-04	1.766E-04	1.797E-04	1.766E-04
18 - 19	8.445E-03	0.00	2.151E-02	0.00	3.123E-02	0.00	2.912E-02	0.00	4.671E-02	0.00	1.625E-04	1.597E-04	1.625E-04	1.597E-04
19 - 20	1.294E-02	0.00	2.527E-02	0.00	3.455E-02	0.00	2.997E-02	0.00	4.616E-02	0.00	1.281E-04	1.259E-04	1.281E-04	1.259E-04
20 - 21	1.720E-02	0.00	2.797E-02	0.00	3.547E-02	0.00	2.933E-02	0.00	4.366E-02	0.00	9.345E-05	9.184E-05	9.345E-05	9.184E-05
21 - 22	2.096E-02	0.00	2.930E-02	0.00	3.482E-02	0.00	2.727E-02	0.00	3.996E-02	0.00	6.896E-05	6.777E-05	6.896E-05	6.777E-05
22 - 23	2.403E-02	0.00	2.928E-02	0.00	3.247E-02	0.00	2.460E-02	0.00	3.550E-02	0.00	5.231E-05	5.141E-05	5.231E-05	5.141E-05
23 - 24	2.561E-02	0.00	2.579E-02	0.00	2.865E-02	0.00	2.226E-02	0.00	2.976E-02	0.00	4.071E-05	4.001E-05	4.071E-05	4.001E-05
24 - 25	2.486E-02	0.00	2.293E-02	0.00	2.540E-02	0.00	1.957E-02	0.00	2.399E-02	0.00	3.323E-05	3.265E-05	3.323E-05	3.265E-05
25 - 30	1.623E-02	0.00	1.458E-02	0.00	1.457E-02	0.00	1.134E-02	0.00	1.206E-02	0.00	1.773E-05	1.743E-05	1.773E-05	1.743E-05
30 - 35	7.522E-03	0.00	7.141E-03	0.00	6.316E-03	0.00	3.614E-03	0.00	5.238E-03	0.00	5.062E-06	4.975E-06	5.062E-06	4.975E-06
35 - 40	2.054E-03	0.00	2.158E-03	0.00	1.844E-03	0.00	2.182E-03	0.00	1.713E-03	0.00	1.332E-06	1.309E-06	1.332E-06	1.309E-06
40 - 45	5.771E-04	0.00	6.083E-04	0.00	5.157E-04	0.00	6.209E-04	0.00	4.682E-04	0.00	0.	0.	0.	0.
45 - 50	1.538E-04	0.00	1.624E-04	0.00	1.412E-04	0.00	1.657E-04	0.00	1.285E-04	0.00	0.	0.	0.	0.
50 - 70	1.456E-05	0.00	1.516E-05	0.00	1.452E-05	0.00	1.521E-05	0.00	1.474E-05	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.709783 MICROMETERS

FREQUENCY = 2123.240 WAVENUMBERS

HT (KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.865E-01	0.00	1.250E-01	0.00	2.956E-02	0.00	7.486E-02	0.00	1.686E-02	0.00	1.165E-02	1.147E-02	5.679E-02	5.589E-02
0 - 1	1.435E-01	0.00	9.765E-02	0.00	2.470E-02	0.00	5.816E-02	0.00	1.459E-02	0.00	7.953E-03	7.828E-03	3.580E-02	3.524E-02
1 - 2	8.590E-02	0.00	5.683E-02	0.00	1.713E-02	0.00	3.551E-02	0.00	1.179E-02	0.00	3.471E-03	3.416E-03	1.152E-02	1.133E-02
2 - 3	4.665E-02	0.00	3.147E-02	0.00	1.233E-02	0.00	2.220E-02	0.00	9.298E-03	0.00	1.481E-03	1.457E-03	4.001E-03	3.937E-03
3 - 4	2.161E-02	0.00	1.723E-02	0.00	8.590E-03	0.00	1.387E-02	0.00	6.741E-03	0.00	6.877E-04	6.769E-04	1.748E-03	1.720E-03
4 - 5	1.162E-02	0.00	1.020E-02	0.00	5.961E-03	0.00	9.047E-03	0.00	5.345E-03	0.00	4.282E-04	4.214E-04	6.393E-04	6.282E-04
5 - 6	7.287E-03	0.00	6.784E-03	0.00	5.014E-03	0.00	6.260E-03	0.00	4.197E-03	0.00	3.128E-04	3.078E-04	3.128E-04	3.078E-04
6 - 7	4.680E-03	0.00	5.084E-03	0.00	4.201E-03	0.00	4.712E-03	0.00	3.618E-03	0.00	2.520E-04	2.480E-04	2.520E-04	2.480E-04
7 - 8	3.240E-03	0.00	4.039E-03	0.00	3.654E-03	0.00	3.801E-03	0.00	3.773E-03	0.00	2.465E-04	2.427E-04	2.465E-04	2.427E-04
8 - 9	2.378E-03	0.00	3.368E-03	0.00	3.694E-03	0.00	3.408E-03	0.00	3.858E-03	0.00	2.450E-04	2.412E-04	2.450E-04	2.412E-04
9 - 10	1.879E-03	0.00	2.895E-03	0.00	3.817E-03	0.00	3.416E-03	0.00	4.601E-03	0.00	2.369E-04	2.332E-04	2.369E-04	2.332E-04
10 - 11	1.569E-03	0.00	2.629E-03	0.00	3.990E-03	0.00	3.507E-03	0.00	5.334E-03	0.00	2.266E-04	2.230E-04	2.266E-04	2.230E-04
11 - 12	1.323E-03	0.00	2.522E-03	0.00	4.103E-03	0.00	3.613E-03	0.00	5.899E-03	0.00	2.247E-04	2.212E-04	2.247E-04	2.212E-04
12 - 13	1.135E-03	0.00	2.462E-03	0.00	4.054E-03	0.00	3.603E-03	0.00	5.901E-03	0.00	2.213E-04	2.178E-04	2.213E-04	2.178E-04
13 - 14	9.361E-04	0.00	2.415E-03	0.00	3.814E-03	0.00	3.448E-03	0.00	5.450E-03	0.00	2.104E-04	2.071E-04	2.104E-04	2.071E-04
14 - 15	8.108E-04	0.00	2.256E-03	0.00	3.455E-03	0.00	3.256E-03	0.00	4.985E-03	0.00	2.018E-04	1.986E-04	2.018E-04	1.986E-04
15 - 16	6.765E-04	0.00	2.057E-03	0.00	3.118E-03	0.00	3.057E-03	0.00	4.764E-03	0.00	1.908E-04	1.878E-04	1.908E-04	1.878E-04
16 - 17	6.330E-04	0.00	1.896E-03	0.00	2.805E-03	0.00	2.859E-03	0.00	4.290E-03	0.00	1.849E-04	1.820E-04	1.849E-04	1.820E-04
17 - 18	6.658E-04	0.00	1.844E-03	0.00	2.528E-03	0.00	2.665E-03	0.00	3.563E-03	0.00	1.808E-04	1.780E-04	1.808E-04	1.780E-04
18 - 19	7.460E-04	0.00	1.812E-03	0.00	2.264E-03	0.00	2.340E-03	0.00	3.072E-03	0.00	1.635E-04	1.609E-04	1.635E-04	1.609E-04
19 - 20	8.634E-04	0.00	1.704E-03	0.00	2.031E-03	0.00	1.954E-03	0.00	2.488E-03	0.00	1.289E-04	1.268E-04	1.289E-04	1.268E-04
20 - 21	9.121E-04	0.00	1.540E-03	0.00	1.727E-03	0.00	1.583E-03	0.00	1.970E-03	0.00	9.403E-05	9.255E-05	9.403E-05	9.255E-05
21 - 22	9.171E-04	0.00	1.349E-03	0.00	1.436E-03	0.00	1.245E-03	0.00	1.544E-03	0.00	6.939E-05	6.829E-05	6.939E-05	6.829E-05
22 - 23	8.991E-04	0.00	1.118E-03	0.00	1.163E-03	0.00	9.701E-04	0.00	1.203E-03	0.00	5.263E-05	5.180E-05	5.263E-05	5.180E-05
23 - 24	8.451E-04	0.00	8.965E-04	0.00	9.140E-04	0.00	7.746E-04	0.00	9.049E-04	0.00	4.096E-05	4.031E-05	4.096E-05	4.031E-05
24 - 25	7.423E-04	0.00	7.163E-04	0.00	7.365E-04	0.00	6.138E-04	0.00	6.681E-04	0.00	3.343E-05	3.290E-05	3.343E-05	3.290E-05
25 - 30	4.112E-04	0.00	3.803E-04	0.00	3.595E-04	0.00	2.981E-04	0.00	2.912E-04	0.00	1.784E-05	1.756E-05	1.784E-05	1.756E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	8.323E-05	0.00	0.	0.00	5.094E-06	5.013E-06	5.094E-06	5.013E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.341E-06	1.319E-06	1.341E-06	1.319E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.691136 MICROMETERS

FREQUENCY = 2131.680 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.72[illegible]E-01	0.00	2.325E-01	0.00	1.865E-01	0.00	2.025E-01	0.00	1.946E-01	0.00	1.169E-02	1.152E-02	5.698E-02	5.613E-02
0 - 1	2.377E-01	0.00	2.108E-01	0.00	1.760E-01	0.00	1.904E-01	0.00	1.826E-01	0.00	7.982E-03	7.862E-03	3.593E-02	3.539E-02
1 - 2	1.889E-01	0.00	1.625E-01	0.00	1.594E-01	0.00	1.620E-01	0.00	1.660E-01	0.00	3.483E-03	3.431E-03	1.156E-02	1.139E-02
2 - 3	1.512E-01	0.00	1.474E-01	0.00	1.504E-01	0.00	1.440E-01	0.00	1.482E-01	0.00	1.486E-03	1.464E-03	4.015E-03	3.955E-03
3 - 4	1.237E-01	0.00	1.227E-01	0.00	1.248E-01	0.00	1.228E-01	0.00	1.316E-01	0.00	6.902E-04	6.798E-04	1.754E-03	1.727E-03
4 - 5	1.060E-01	0.00	1.065E-01	0.00	1.131E-01	0.00	1.086E-01	0.00	1.166E-01	0.00	4.297E-04	4.233E-04	6.406E-04	6.309E-04
5 - 6	9.304E-02	0.00	9.357E-02	0.00	9.901E-02	0.00	9.587E-02	0.00	1.020E-01	0.00	3.139E-04	3.092E-04	3.139E-04	3.092E-04
6 - 7	8.007E-02	0.00	8.184E-02	0.00	8.522E-02	0.00	8.267E-02	0.00	8.794E-02	0.00	2.529E-04	2.491E-04	2.529E-04	2.491E-04
7 - 8	6.879E-02	0.00	6.957E-02	0.00	7.298E-02	0.00	7.092E-02	0.00	7.459E-02	0.00	2.474E-04	2.437E-04	2.474E-04	2.437E-04
8 - 9	5.918E-02	0.00	5.843E-02	0.00	6.031E-02	0.00	6.036E-02	0.00	6.143E-02	0.00	2.459E-04	2.422E-04	2.459E-04	2.422E-04
9 - 10	4.909E-02	0.00	4.920E-02	0.00	5.048E-02	0.00	5.026E-02	0.00	4.816E-02	0.00	2.378E-04	2.342E-04	2.378E-04	2.342E-04
10 - 11	4.157E-02	0.00	4.118E-02	0.00	3.944E-02	0.00	4.075E-02	0.00	3.722E-02	0.00	2.274E-04	2.239E-04	2.274E-04	2.239E-04
11 - 12	3.351E-02	0.00	3.378E-02	0.00	3.114E-02	0.00	3.176E-02	0.00	2.893E-02	0.00	2.255E-04	2.221E-04	2.255E-04	2.221E-04
12 - 13	2.794E-02	0.00	2.706E-02	0.00	2.356E-02	0.00	2.416E-02	0.00	2.224E-02	0.00	2.221E-04	2.188E-04	2.221E-04	2.188E-04
13 - 14	2.133E-02	0.00	2.170E-02	0.00	1.813E-02	0.00	1.872E-02	0.00	1.715E-02	0.00	2.111E-04	2.079E-04	2.111E-04	2.079E-04
14 - 15	1.778E-02	0.00	1.635E-02	0.00	1.399E-02	0.00	1.458E-02	0.00	1.333E-02	0.00	2.025E-04	1.995E-04	2.025E-04	1.995E-04
15 - 16	1.386E-02	0.00	1.237E-02	0.00	1.058E-02	0.00	1.087E-02	0.00	1.046E-02	0.00	1.915E-04	1.886E-04	1.915E-04	1.886E-04
16 - 17	1.004E-02	0.00	8.877E-03	0.00	8.112E-03	0.00	8.770E-03	0.00	8.264E-03	0.00	1.856E-04	1.828E-04	1.856E-04	1.829E-04
17 - 18	7.325E-03	0.00	6.980E-03	0.00	6.354E-03	0.00	7.021E-03	0.00	6.415E-03	0.00	1.815E-04	1.788E-04	1.815E-04	1.788E-04
18 - 19	5.181E-03	0.00	5.225E-03	0.00	4.931E-03	0.00	5.493E-03	0.00	4.968E-03	0.00	1.640E-04	1.616E-04	1.640E-04	1.616E-04
19 - 20	3.687E-03	0.00	4.284E-03	0.00	3.838E-03	0.00	4.227E-03	0.00	3.805E-03	0.00	1.293E-04	1.274E-04	1.293E-04	1.274E-04
20 - 21	2.781E-03	0.00	3.259E-03	0.00	3.005E-03	0.00	3.243E-03	0.00	2.888E-03	0.00	9.436E-05	9.295E-05	9.436E-05	9.295E-05
21 - 22	2.131E-03	0.00	2.563E-03	0.00	2.292E-03	0.00	2.476E-03	0.00	2.178E-03	0.00	6.963E-05	6.859E-05	6.963E-05	6.859E-05
22 - 23	1.676E-03	0.00	1.961E-03	0.00	1.759E-03	0.00	1.877E-03	0.00	1.638E-03	0.00	5.282E-05	5.202E-05	5.282E-05	5.202E-05
23 - 24	1.355E-03	0.00	1.541E-03	0.00	1.314E-03	0.00	1.436E-03	0.00	1.211E-03	0.00	4.111E-05	4.049E-05	4.111E-05	4.049E-05
24 - 25	1.094E-03	0.00	1.169E-03	0.00	1.039E-03	0.00	1.102E-03	0.00	8.872E-04	0.00	3.355E-05	3.305E-05	3.355E-05	3.305E-05
25 - 30	5.621E-04	0.00	5.834E-04	0.00	4.670E-04	0.00	5.231E-04	0.00	3.852E-04	0.00	1.790E-05	1.763E-05	1.790E-05	1.763E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.420E-04	0.00	0.	0.00	5.112E-06	5.035E-06	5.112E-06	5.035E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.345E-06	1.325E-06	1.345E-06	1.325E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.662439 MICROMETERS

FREQUENCY = 2144.800 WAVENUMBERS

HT (KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.337E+00	0.00	8.566E-01	0.00	1.294E-01	0.00	4.736E-01	0.00	3.488E-02	0.00	1.176E-02	1.160E-02	5.730E-02	5.650E-02
0 - 1	1.059E+00	0.00	6.860E-01	0.00	1.070E-01	0.00	3.728E-01	0.00	3.463E-02	0.00	8.025E-03	7.915E-03	3.612E-02	3.563E-02
1 - 2	6.707E-01	0.00	4.185E-01	0.00	7.327E-02	0.00	2.304E-01	0.00	3.071E-02	0.00	3.502E-03	3.454E-03	1.162E-02	1.146E-02
2 - 3	3.775E-01	0.00	2.285E-01	0.00	4.861E-02	0.00	1.401E-01	0.00	2.213E-02	0.00	1.494E-03	1.474E-03	4.037E-03	3.981E-03
3 - 4	1.675E-01	0.00	1.157E-01	0.00	2.754E-02	0.00	8.117E-02	0.00	1.397E-02	0.00	6.939E-04	6.844E-04	1.763E-03	1.739E-03
4 - 5	8.033E-02	0.00	5.671E-02	0.00	1.407E-02	0.00	4.417E-02	0.00	7.304E-03	0.00	4.321E-04	4.261E-04	6.441E-04	6.352E-04
5 - 6	4.339E-02	0.00	2.822E-02	0.00	7.333E-03	0.00	2.165E-02	0.00	3.645E-03	0.00	3.156E-04	3.112E-04	3.156E-04	3.112E-04
6 - 7	2.093E-02	0.00	1.503E-02	0.00	3.556E-03	0.00	1.001E-02	0.00	2.024E-03	0.00	2.543E-04	2.507E-04	2.543E-04	2.507E-04
7 - 8	9.765E-03	0.00	7.041E-03	0.00	1.749E-03	0.00	4.442E-03	0.00	1.125E-03	0.00	2.488E-04	2.453E-04	2.488E-04	2.453E-04
8 - 9	4.325E-03	0.00	3.832E-03	0.00	1.013E-03	0.00	1.843E-03	0.00	7.283E-04	0.00	2.473E-04	2.438E-04	2.473E-04	2.438E-04
9 - 10	1.952E-03	0.00	1.957E-03	0.00	6.502E-04	0.00	8.807E-04	0.00	5.341E-04	0.00	2.391E-04	2.358E-04	2.391E-04	2.358E-04
10 - 11	9.184E-04	0.00	9.546E-04	0.00	4.672E-04	0.00	5.711E-04	0.00	3.989E-04	0.00	2.286E-04	2.254E-04	2.286E-04	2.254E-04
11 - 12	5.075E-04	0.00	5.009E-04	0.00	3.569E-04	0.00	4.277E-04	0.00	3.209E-04	0.00	2.268E-04	2.236E-04	2.268E-04	2.236E-04
12 - 13	3.358E-04	0.00	3.114E-04	0.00	2.629E-04	0.00	3.107E-04	0.00	2.260E-04	0.00	2.233E-04	2.203E-04	2.233E-04	2.203E-04
13 - 14	2.183E-04	0.00	2.259E-04	0.00	1.945E-04	0.00	2.384E-04	0.00	1.737E-04	0.00	2.123E-04	2.093E-04	2.123E-04	2.093E-04
14 - 15	1.604E-04	0.00	1.760E-04	0.00	1.478E-04	0.00	1.875E-04	0.00	1.323E-04	0.00	2.036E-04	2.008E-04	2.036E-04	2.008E-04
15 - 16	1.111E-04	0.00	1.307E-04	0.00	1.124E-04	0.00	1.401E-04	0.00	1.009E-04	0.00	1.925E-04	1.898E-04	1.925E-04	1.898E-04
16 - 17	7.432E-05	0.00	9.905E-05	0.00	8.565E-05	0.00	1.153E-04	0.00	7.692E-05	0.00	1.866E-04	1.840E-04	1.866E-04	1.840E-04
17 - 18	5.578E-05	0.00	7.713E-05	0.00	6.597E-05	0.00	9.027E-05	0.00	5.821E-05	0.00	1.800E-04	1.825E-04	1.800E-04	1.800E-04
18 - 19	4.308E-05	0.00	5.945E-05	0.00	4.941E-05	0.00	7.087E-05	0.00	4.405E-05	0.00	1.649E-04	1.627E-04	1.649E-04	1.627E-04
19 - 20	3.350E-05	0.00	4.689E-05	0.00	3.703E-05	0.00	5.587E-05	0.00	3.271E-05	0.00	1.300E-04	1.283E-04	1.300E-04	1.283E-04
20 - 21	2.715E-05	0.00	3.651E-05	0.00	2.858E-05	0.00	4.250E-05	0.00	2.447E-05	0.00	9.488E-05	9.357E-05	9.488E-05	9.357E-05
21 - 22	2.217E-05	0.00	2.895E-05	0.00	2.147E-05	0.00	3.330E-05	0.00	1.803E-05	0.00	7.001E-05	6.905E-05	7.001E-05	6.905E-05
22 - 23	1.765E-05	0.00	2.250E-05	0.00	1.605E-05	0.00	2.553E-05	0.00	1.314E-05	0.00	5.311E-05	5.237E-05	5.311E-05	5.237E-05
23 - 24	1.400E-05	0.00	1.852E-05	0.00	1.192E-05	0.00	1.952E-05	0.00	9.819E-06	0.00	4.133E-05	4.076E-05	4.133E-05	4.076E-05
24 - 25	1.129E-05	0.00	1.400E-05	0.00	9.265E-06	0.00	1.564E-05	0.00	7.051E-06	0.00	3.373E-05	3.327E-05	3.373E-05	3.327E-05
25 - 30	6.200E-06	0.00	7.747E-06	0.00	4.081E-06	0.00	8.461E-06	0.00	3.278E-06	0.00	1.800E-05	1.775E-05	1.800E-05	1.775E-05
30 - 35	2.588E-06	0.00	3.237E-06	0.00	1.236E-06	0.00	2.723E-06	0.00	0.	0.00	5.140E-06	5.069E-06	5.140E-06	5.069E-06
35 - 40	1.102E-06	0.00	1.439E-06	0.00	0.	0.00	1.664E-06	0.00	0.	0.00	1.353E-06	1.334E-06	1.353E-06	1.334E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.640307 MICROMETERS

FREQUENCY = 2155.030 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.860E-01	0.00	1.263E-01	0.00	3.437E-02	0.00	7.795E-02	0.00	2.250E-02	0.00	1.181E-02	1.166E-02	5.754E-02	5.680E-02
0 - 1	1.489E-01	0.00	1.024E-01	0.00	2.876E-02	0.00	6.287E-02	0.00	1.921E-02	0.00	8.059E-03	7.956E-03	3.628E-02	3.581E-02
1 - 2	9.668E-02	0.00	6.478E-02	0.00	2.110E-02	0.00	4.125E-02	0.00	1.543E-02	0.00	3.517E-03	3.472E-03	1.167E-02	1.152E-02
2 - 3	5.741E-02	0.00	3.870E-02	0.00	1.555E-02	0.00	2.728E-02	0.00	1.172E-02	0.00	1.501E-03	1.481E-03	4.054E-03	4.002E-03
3 - 4	2.903E-02	0.00	2.230E-02	0.00	1.059E-02	0.00	1.775E-02	0.00	8.655E-03	0.00	6.969E-04	6.879E-04	1.771E-03	1.748E-03
4 - 5	1.639E-02	0.00	1.322E-02	0.00	7.338E-03	0.00	1.146E-02	0.00	6.239E-03	0.00	4.339E-04	4.283E-04	6.458E-04	6.385E-04
5 - 6	1.044E-02	0.00	8.327E-03	0.00	5.200E-03	0.00	7.310E-03	0.00	4.545E-03	0.00	3.169E-04	3.129E-04	3.169E-04	3.129E-04
6 - 7	6.460E-03	0.00	5.633E-03	0.00	3.734E-03	0.00	4.721E-03	0.00	3.374E-03	0.00	2.553E-04	2.521E-04	2.553E-04	2.521E-04
7 - 8	4.262E-03	0.00	3.805E-03	0.00	2.730E-03	0.00	3.213E-03	0.00	2.522E-03	0.00	2.498E-04	2.466E-04	2.498E-04	2.466E-04
8 - 9	2.685E-03	0.00	2.643E-03	0.00	2.023E-03	0.00	2.251E-03	0.00	1.883E-03	0.00	2.483E-04	2.451E-04	2.493E-04	2.451E-04
9 - 10	1.927E-03	0.00	1.890E-03	0.00	1.534E-03	0.00	1.634E-03	0.00	1.384E-03	0.00	2.401E-04	2.370E-04	2.401E-04	2.370E-04
10 - 11	1.410E-03	0.00	1.371E-03	0.00	1.127E-03	0.00	1.22 E-03	0.00	1.016E-03	0.00	2.296E-04	2.266E-04	2.296E-04	2.266E-04
11 - 12	1.030E-03	0.00	1.010E-03	0.00	8.460E-04	0.00	9.144E-04	0.00	7.479E-04	0.00	2.277E-04	2.248E-04	2.277E-04	2.248E-04
12 - 13	7.958E-04	0.00	7.479E-04	0.00	6.177E-04	0.00	6.674E-04	0.00	5.459E-04	0.00	2.243E-04	2.214E-04	2.243E-04	2.214E-04
13 - 14	5.681E-04	0.00	5.666E-04	0.00	4.533E-04	0.00	5.000E-04	0.00	4.009E-04	0.00	2.132E-04	2.104E-04	2.132E-04	2.104E-04
14 - 15	4.480E-04	0.00	4.211E-04	0.00	3.363E-04	0.00	3.767E-04	0.00	2.959E-04	0.00	2.045E-04	2.019E-04	2.045E-04	2.019E-04
15 - 16	3.320E-04	0.00	3.040E-04	0.00	2.452E-04	0.00	2.657E-04	0.00	2.160E-04	0.00	1.933E-04	1.908E-04	1.933E-04	1.908E-04
16 - 17	2.316E-04	0.00	2.153E-04	0.00	1.797E-04	0.00	2.057E-04	0.00	1.593E-04	0.00	1.874E-04	1.850E-04	1.874E-04	1.850E-04
17 - 18	1.671E-04	0.00	1.613E-04	0.00	1.335E-04	0.00	1.540E-04	0.00	1.169E-04	0.00	1.832E-04	1.809E-04	1.832E-04	1.809E-04
18 - 19	1.173E-04	0.00	1.155E-04	0.00	9.733E-05	0.00	1.147E-04	0.00	8.564E-05	0.00	1.656E-04	1.635E-04	1.656E-04	1.635E-04
19 - 20	8.144E-05	0.00	8.794E-05	0.00	7.092E-05	0.00	8.497E-05	0.00	6.261E-05	0.00	1.306E-04	1.289E-04	1.306E-04	1.289E-04
20 - 21	5.871E-05	0.00	6.336E-05	0.00	5.279E-05	0.00	6.259E-05	0.00	4.583E-05	0.00	9.528E-05	9.406E-05	9.528E-05	9.406E-05
21 - 22	4.217E-05	0.00	4.713E-05	0.00	3.818E-05	0.00	4.670E-05	0.00	3.341E-05	0.00	7.031E-05	6.941E-05	7.031E-05	6.941E-05
22 - 23	3.023E-05	0.00	3.405E-05	0.00	2.792E-05	0.00	3.462E-05	0.00	2.436E-05	0.00	5.333E-05	5.265E-05	5.333E-05	5.265E-05
23 - 24	2.217E-05	0.00	2.617E-05	0.00	2.003E-05	0.00	2.575E-05	0.00	1.777E-05	0.00	4.151E-05	4.097E-05	4.151E-05	4.097E-05
24 - 25	1.650E-05	0.00	1.896E-05	0.00	1.551E-05	0.00	1.918E-05	0.00	1.291E-05	0.00	3.388E-05	3.344E-05	3.398E-05	3.344E-05
25 - 30	7.335E-06	0.00	8.612E-06	0.00	6.374E-06	0.00	8.790E-06	0.00	5.479E-06	0.00	1.808E-05	1.785E-05	1.808E-05	1.785E-05
30 - 35	1.070E-06	0.00	1.298E-06	0.00	0.	0.00	2.198E-06	0.00	0.	0.00	5.162E-06	5.095E-06	5.162E-06	5.095E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.358E-06	1.341E-06	1.358E-06	1.341E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.616954 MICROMETERS

FREQUENCY = 2165.930 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.083E-02	0.00	5.410E-02	0.00	4.592E-02	0.00	4.873E-02	0.00	4.656E-02	0.00	1.186E-02	1.172E-02	5.780E-02	5.711E-02
0 - 1	5.206E-02	0.00	4.717E-02	0.00	4.104E-02	0.00	4.308E-02	0.00	3.977E-02	0.00	8.096E-03	8.000E-03	3.644E-02	3.601E-02
1 - 2	3.845E-02	0.00	3.486E-02	0.00	3.191E-02	0.00	3.313E-02	0.00	3.162E-02	0.00	3.533E-03	3.491E-03	1.172E-02	1.158E-02
2 - 3	2.863E-02	0.00	2.737E-02	0.00	2.578E-02	0.00	2.604E-02	0.00	2.493E-02	0.00	1.507E-03	1.489E-03	4.072E-03	4.024E-03
3 - 4	2.155E-02	0.00	2.089E-02	0.00	1.986E-02	0.00	2.036E-02	0.00	1.967E-02	0.00	7.000E-04	6.917E-04	1.779E-03	1.758E-03
4 - 5	1.668E-02	0.00	1.634E-02	0.00	1.590E-02	0.00	1.607E-02	0.00	1.554E-02	0.00	4.359E-04	4.307E-04	6.497E-04	6.420E-04
5 - 6	1.321E-02	0.00	1.300E-02	0.00	1.243E-02	0.00	1.269E-02	0.00	1.228E-02	0.00	3.184E-04	3.146E-04	3.184E-04	3.146E-04
6 - 7	1.036E-02	0.00	1.035E-02	0.00	9.885E-03	0.00	9.903E-03	0.00	9.553E-03	0.00	2.565E-04	2.534E-04	2.565E-04	2.534E-04
7 - 8	8.343E-03	0.00	8.068E-03	0.00	7.674E-03	0.00	7.822E-03	0.00	7.525E-03	0.00	2.510E-04	2.480E-04	2.510E-04	2.480E-04
8 - 9	6.313E-03	0.00	6.336E-03	0.00	5.899E-03	0.00	6.177E-03	0.00	5.694E-03	0.00	2.494E-04	2.465E-04	2.494E-04	2.465E-04
9 - 10	5.036E-03	0.00	4.910E-03	0.00	4.659E-03	0.00	4.746E-03	0.00	4.217E-03	0.00	2.412E-04	2.383E-04	2.412E-04	2.383E-04
10 - 11	3.995E-03	0.00	3.882E-03	0.00	3.391E-03	0.00	3.633E-03	0.00	3.125E-03	0.00	2.306E-04	2.279E-04	2.306E-04	2.279E-04
11 - 12	3.048E-03	0.00	2.990E-03	0.00	2.582E-03	0.00	2.762E-03	0.00	2.301E-03	0.00	2.287E-04	2.260E-04	2.287E-04	2.260E-04
12 - 13	2.424E-03	0.00	2.299E-03	0.00	1.895E-03	0.00	1.979E-03	0.00	1.677E-03	0.00	2.253E-04	2.226E-04	2.253E-04	2.226E-04
13 - 14	1.761E-03	0.00	1.728E-03	0.00	1.386E-03	0.00	1.494E-03	0.00	1.226E-03	0.00	2.141E-04	2.116E-04	2.141E-04	2.116E-04
14 - 15	1.411E-03	0.00	1.297E-03	0.00	1.026E-03	0.00	1.119E-03	0.00	9.026E-04	0.00	2.054E-04	2.030E-04	2.054E-04	2.030E-04
15 - 16	1.060E-03	0.00	9.295E-04	0.00	7.456E-04	0.00	7.829E-04	0.00	6.563E-04	0.00	1.942E-04	1.919E-04	1.942E-04	1.919E-04
16 - 17	7.459E-04	0.00	6.577E-04	0.00	5.467E-04	0.00	6.018E-04	0.00	4.822E-04	0.00	1.882E-04	1.860E-04	1.882E-04	1.860E-04
17 - 18	5.366E-04	0.00	4.898E-04	0.00	4.049E-04	0.00	4.469E-04	0.00	3.543E-04	0.00	1.841E-04	1.819E-04	1.841E-04	1.819E-04
18 - 19	3.731E-04	0.00	3.490E-04	0.00	2.937E-04	0.00	3.318E-04	0.00	2.594E-04	0.00	1.664E-04	1.644E-04	1.664E-04	1.644E-04
19 - 20	2.559E-04	0.00	2.634E-04	0.00	2.141E-04	0.00	2.435E-04	0.00	1.893E-04	0.00	1.312E-04	1.296E-04	1.312E-04	1.296E-04
20 - 21	1.815E-04	0.00	1.876E-04	0.00	1.590E-04	0.00	1.790E-04	0.00	1.389E-04	0.00	9.571E-05	9.458E-05	9.571E-05	9.458E-05
21 - 22	1.280E-04	0.00	1.392E-04	0.00	1.149E-04	0.00	1.327E-04	0.00	1.011E-04	0.00	7.063E-05	6.979E-05	7.063E-05	6.979E-05
22 - 23	9.024E-05	0.00	9.884E-05	0.00	8.373E-05	0.00	9.795E-05	0.00	7.384E-05	0.00	5.357E-05	5.294E-05	5.357E-05	5.294E-05
23 - 24	6.538E-05	0.00	7.510E-05	0.00	5.959E-05	0.00	7.263E-05	0.00	5.404E-05	0.00	4.169E-05	4.120E-05	4.169E-05	4.120E-05
24 - 25	4.785E-05	0.00	5.398E-05	0.00	4.644E-05	0.00	5.317E-05	0.00	3.902E-05	0.00	3.403E-05	3.363E-05	3.403E-05	3.363E-05
25 - 30	2.027E-05	0.00	2.334E-05	0.00	1.882E-05	0.00	2.334E-05	0.00	1.641E-05	0.00	1.816E-05	1.794E-05	1.816E-05	1.794E-05
30 - 35	1.215E-06	0.00	1.423E-06	0.00	1.027E-06	0.00	5.298E-06	0.00	0.	0.00	5.185E-06	5.123E-06	5.185E-06	5.123E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.364E-06	1.348E-06	1.364E-06	1.348E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.591389 MICROMETERS

FREQUENCY = 2177.990 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.230E-01	0.00	1.161E-01	0.00	9.789E-02	0.00	1.085E-01	0.00	8.671E-02	0.00	1.192E-02	1.179E-02	5.808E-02	5.746E-02
0 - 1	1.199E-01	0.00	1.053E-01	0.00	8.723E-02	0.00	9.647E-02	0.00	7.781E-02	0.00	8.136E-03	8.048E-03	3.662E-02	3.623E-02
1 - 2	8.595E-02	0.00	8.305E-02	0.00	6.887E-02	0.00	7.610E-02	0.00	6.211E-02	0.00	3.551E-03	3.512E-03	1.178E-02	1.165E-02
2 - 3	6.701E-02	0.00	6.414E-02	0.00	5.344E-02	0.00	5.861E-02	0.00	4.780E-02	0.00	1.515E-03	1.498E-03	4.092E-03	4.046E-03
3 - 4	5.170E-02	0.00	4.905E-02	0.00	4.060E-02	0.00	4.533E-02	0.00	3.613E-02	0.00	7.035E-04	6.959E-04	1.788E-03	1.768E-03
4 - 5	3.882E-02	0.00	3.706E-02	0.00	3.034E-02	0.00	3.424E-02	0.00	2.653E-02	0.00	4.380E-04	4.333E-04	6.529E-04	6.459E-04
5 - 6	2.927E-02	0.00	2.810E-02	0.00	2.179E-02	0.00	2.515E-02	0.00	1.917E-02	0.00	3.199E-04	3.165E-04	3.199E-04	3.165E-04
6 - 7	2.160E-02	0.00	2.097E-02	0.00	1.625E-02	0.00	1.827E-02	0.00	1.334E-02	0.00	2.578E-04	2.550E-04	2.578E-04	2.551E-04
7 - 8	1.690E-02	0.00	1.519E-02	0.00	1.140E-02	0.00	1.307E-02	0.00	9.539E-03	0.00	2.522E-04	2.495E-04	2.522E-04	2.495E-04
8 - 9	1.130E-02	0.00	1.108E-02	0.00	7.961E-03	0.00	9.373E-03	0.00	6.527E-03	0.00	2.507E-04	2.480E-04	2.507E-04	2.480E-04
9 - 10	8.285E-03	0.00	7.712E-03	0.00	5.784E-03	0.00	6.393E-03	0.00	4.688E-03	0.00	2.424E-04	2.398E-04	2.424E-04	2.398E-04
10 - 11	5.854E-03	0.00	5.583E-03	0.00	3.901E-03	0.00	4.615E-03	0.00	3.500E-03	0.00	2.317E-04	2.292E-04	2.317E-04	2.292E-04
11 - 12	4.029E-03	0.00	3.843E-03	0.00	2.970E-03	0.00	3.569E-03	0.00	2.574E-03	0.00	2.299E-04	2.274E-04	2.299E-04	2.274E-04
12 - 13	2.673E-03	0.00	2.673E-03	0.00	2.178E-03	0.00	2.505E-03	0.00	1.875E-03	0.00	2.264E-04	2.240E-04	2.264E-04	2.240E-04
13 - 14	1.835E-03	0.00	1.862E-03	0.00	1.565E-03	0.00	1.914E-03	0.00	1.368E-03	0.00	2.152E-04	2.129E-04	2.152E-04	2.129E-04
14 - 15	1.301E-03	0.00	1.420E-03	0.00	1.147E-03	0.00	1.437E-03	0.00	1.001E-03	0.00	2.064E-04	2.042E-04	2.064E-04	2.042E-04
15 - 16	8.592E-04	0.00	1.005E-03	0.00	8.282E-04	0.00	1.060E-03	0.00	7.282E-04	0.00	1.951E-04	1.930E-04	1.951E-04	1.931E-04
16 - 17	5.511E-04	0.00	7.223E-04	0.00	6.041E-04	0.00	7.896E-04	0.00	5.270E-04	0.00	1.892E-04	1.871E-04	1.892E-04	1.871E-04
17 - 18	4.047E-04	0.00	5.339E-04	0.00	4.418E-04	0.00	5.666E-04	0.00	3.846E-04	0.00	1.850E-04	1.830E-04	1.850E-04	1.830E-04
18 - 19	3.050E-04	0.00	3.880E-04	0.00	3.156E-04	0.00	4.230E-04	0.00	2.788E-04	0.00	1.672E-04	1.654E-04	1.672E-04	1.654E-04
19 - 20	2.272E-04	0.00	2.927E-04	0.00	2.298E-04	0.00	3.106E-04	0.00	2.005E-04	0.00	1.318E-04	1.304E-04	1.318E-04	1.304E-04
20 - 21	1.736E-04	0.00	2.134E-04	0.00	1.708E-04	0.00	2.287E-04	0.00	1.459E-04	0.00	9.619E-05	9.515E-05	9.619E-05	9.515E-05
21 - 22	1.322E-04	0.00	1.625E-04	0.00	1.239E-04	0.00	1.691E-04	0.00	1.050E-04	0.00	7.098E-05	7.021E-05	7.098E-05	7.021E-05
22 - 23	9.837E-05	0.00	1.175E-04	0.00	8.997E-05	0.00	1.247E-04	0.00	7.579E-05	0.00	5.384E-05	5.326E-05	5.384E-05	5.326E-05
23 - 24	7.399E-05	0.00	9.174E-05	0.00	6.375E-05	0.00	9.393E-05	0.00	5.503E-05	0.00	4.190E-05	4.145E-05	4.190E-05	4.145E-05
24 - 25	5.593E-05	0.00	6.727E-05	0.00	5.003E-05	0.00	7.025E-05	0.00	3.891E-05	0.00	3.420E-05	3.383E-05	3.420E-05	3.383E-05
25 - 30	2.653E-05	0.00	3.179E-05	0.00	2.060E-05	0.00	3.311E-05	0.00	1.712E-05	0.00	1.825E-05	1.805E-05	1.825E-05	1.805E-05
30 - 35	1.045E-06	0.00	1.464E-06	0.00	3.561E-06	0.00	6.683E-06	0.00	3.443E-06	0.00	5.210E-06	5.154E-06	5.210E-06	5.154E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.371E-06	1.356E-06	1.371E-06	1.356E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 55	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
55 - 60	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.573247 MICROMETERS

FREQUENCY = 2186.630 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.727E-01	0.00	6.003E-01	0.00	4.826E-01	0.00	5.397E-01	0.00	4.565E-01	0.00	1.196E-02	1.184E-02	5.829E-02	5.771E-02
0 - 1	6.059E-01	0.00	5.585E-01	0.00	4.592E-01	0.00	5.153E-01	0.00	4.397E-01	0.00	8.164E-03	8.083E-03	3.675E-02	3.638E-02
1 - 2	5.088E-01	0.00	4.603E-01	0.00	4.259E-01	0.00	4.523E-01	0.00	4.166E-01	0.00	3.563E-03	3.527E-03	1.182E-02	1.170E-02
2 - 3	4.425E-01	0.00	4.375E-01	0.00	4.142E-01	0.00	4.173E-01	0.00	3.887E-01	0.00	1.520E-03	1.505E-03	4.107E-03	4.066E-03
3 - 4	3.974E-01	0.00	3.899E-01	0.00	3.661E-01	0.00	3.793E-01	0.00	3.661E-01	0.00	7.060E-04	6.989E-04	1.794E-03	1.776E-03
4 - 5	3.648E-01	0.00	3.616E-01	0.00	3.512E-01	0.00	3.580E-01	0.00	3.452E-01	0.00	4.396E-04	4.352E-04	6.552E-04	6.487E-04
5 - 6	3.439E-01	0.00	3.419E-01	0.00	3.303E-01	0.00	3.388E-01	0.00	3.254E-01	0.00	3.211E-04	3.179E-04	3.211E-04	3.179E-04
6 - 7	3.213E-01	0.00	3.251E-01	0.00	3.118E-01	0.00	3.131E-01	0.00	3.058E-01	0.00	2.587E-04	2.561E-04	2.587E-04	2.561E-04
7 - 8	3.033E-01	0.00	3.025E-01	0.00	2.949E-01	0.00	2.968E-01	0.00	2.867E-01	0.00	2.531E-04	2.506E-04	2.531E-04	2.506E-04
8 - 9	2.876E-01	0.00	2.802E-01	0.00	2.712E-01	0.00	2.782E-01	0.00	2.667E-01	0.00	2.515E-04	2.490E-04	2.515E-04	2.490E-04
9 - 10	2.625E-01	0.00	2.606E-01	0.00	2.536E-01	0.00	2.553E-01	0.00	2.430E-01	0.00	2.432E-04	2.408E-04	2.432E-04	2.408E-04
10 - 11	2.455E-01	0.00	2.417E-01	0.00	2.254E-01	0.00	2.353E-01	0.00	2.188E-01	0.00	2.326E-04	2.302E-04	2.326E-04	2.302E-04
11 - 12	2.190E-01	0.00	2.183E-01	0.00	2.057E-01	0.00	2.127E-01	0.00	1.938E-01	0.00	2.307E-04	2.284E-04	2.307E-04	2.284E-04
12 - 13	2.011E-01	0.00	1.912E-01	0.00	1.761E-01	0.00	1.836E-01	0.00	1.660E-01	0.00	2.272E-04	2.249E-04	2.272E-04	2.249E-04
13 - 14	1.663E-01	0.00	1.705E-01	0.00	1.503E-01	0.00	1.586E-01	0.00	1.398E-01	0.00	2.160E-04	2.138E-04	2.160E-04	2.138E-04
14 - 15	1.489E-01	0.00	1.444E-01	0.00	1.261E-01	0.00	1.346E-01	0.00	1.156E-01	0.00	2.072E-04	2.051E-04	2.072E-04	2.051E-04
15 - 16	1.231E-01	0.00	1.196E-01	0.00	1.009E-01	0.00	1.054E-01	0.00	9.234E-02	0.00	1.958E-04	1.939E-04	1.958E-04	1.939E-04
16 - 17	9.413E-02	0.00	9.099E-02	0.00	7.995E-02	0.00	8.801E-02	0.00	7.342E-02	0.00	1.898E-04	1.879E-04	1.898E-04	1.879E-04
17 - 18	7.444E-02	0.00	7.402E-02	0.00	6.349E-02	0.00	7.101E-02	0.00	5.686E-02	0.00	1.856E-04	1.838E-04	1.856E-04	1.838E-04
18 - 19	5.670E-02	0.00	5.515E-02	0.00	4.880E-02	0.00	5.534E-02	0.00	4.348E-02	0.00	1.678E-04	1.661E-04	1.678E-04	1.661E-04
19 - 20	4.148E-02	0.00	4.513E-02	0.00	3.681E-02	0.00	4.221E-02	0.00	3.291E-02	0.00	1.323E-04	1.310E-04	1.323E-04	1.310E-04
20 - 21	3.113E-02	0.00	3.303E-02	0.00	2.817E-02	0.00	3.212E-02	0.00	2.468E-02	0.00	9.653E-05	9.556E-05	9.653E-05	9.556E-05
21 - 22	2.286E-02	0.00	2.503E-02	0.00	2.069E-02	0.00	2.444E-02	0.00	1.834E-02	0.00	7.123E-05	7.052E-05	7.123E-05	7.052E-05
22 - 23	1.659E-02	0.00	1.836E-02	0.00	1.543E-02	0.00	1.839E-02	0.00	1.356E-02	0.00	5.403E-05	5.349E-05	5.403E-05	5.349E-05
23 - 24	1.224E-02	0.00	1.420E-02	0.00	1.116E-02	0.00	1.374E-02	0.00	9.976E-03	0.00	4.205E-05	4.163E-05	4.205E-05	4.163E-05
24 - 25	9.131E-03	0.00	1.033E-02	0.00	8.726E-03	0.00	1.024E-02	0.00	7.319E-03	0.00	3.432E-05	3.398E-05	3.432E-05	3.398E-05
25 - 30	3.980E-03	0.00	4.600E-03	0.00	3.609E-03	0.00	4.620E-03	0.00	3.121E-03	0.00	1.831E-05	1.813E-05	1.831E-05	1.813E-05
30 - 35	9.812E-04	0.00	1.148E-03	0.00	8.237E-04	0.00	1.074E-03	0.00	7.021E-04	0.00	5.229E-06	5.177E-06	5.229E-06	5.177E-06
35 - 40	2.349E-04	0.00	2.772E-04	0.00	1.785E-04	0.00	2.827E-04	0.00	1.480E-04	0.00	1.376E-06	1.362E-06	1.376E-06	1.362E-06
40 - 45	6.021E-05	0.00	7.105E-05	0.00	4.188E-05	0.00	7.399E-05	0.00	3.333E-05	0.00	0.	0.	0.	0.
45 - 50	1.626E-05	0.00	1.991E-05	0.00	1.085E-05	0.00	2.092E-05	0.00	8.154E-06	0.00	0.	0.	0.	0.
50 - 70	1.622E-06	0.00	2.012E-06	0.00	0.	0.00	2.169E-06	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.544339 MICROMETERS

FREQUENCY = 2200.540 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.861E-01	0.00	4.323E-01	0.00	3.519E-01	0.00	3.849E-01	0.00	3.468E-01	0.00	1.203E-02	1.192E-02	5.852E-02	5.811E-02
0 - 1	4.199E-01	0.00	3.782E-01	0.00	3.158E-01	0.00	3.434E-01	0.00	3.108E-01	0.00	8.211E-03	8.139E-03	3.696E-02	3.664E-02
1 - 2	3.085E-01	0.00	2.820E-01	0.00	2.487E-01	0.00	2.611E-01	0.00	2.426E-01	0.00	3.583E-03	3.551E-03	1.159E-02	1.179E-02
2 - 3	2.257E-01	0.00	2.102E-01	0.00	1.936E-01	0.00	2.010E-01	0.00	1.883E-01	0.00	1.529E-03	1.515E-03	4.130E-03	4.094E-03
3 - 4	1.654E-01	0.00	1.598E-01	0.00	1.504E-01	0.00	1.564E-01	0.00	1.457E-01	0.00	7.100E-04	7.038E-04	1.804E-03	1.788E-03
4 - 5	1.258E-01	0.00	1.226E-01	0.00	1.174E-01	0.00	1.210E-01	0.00	1.124E-01	0.00	4.421E-04	4.382E-04	6.539E-04	6.532E-04
5 - 6	9.815E-02	0.00	9.609E-02	0.00	8.860E-02	0.00	9.270E-02	0.00	8.704E-02	0.00	3.229E-04	3.201E-04	3.229E-04	3.201E-04
6 - 7	7.570E-02	0.00	7.500E-02	0.00	7.050E-02	0.00	7.173E-02	0.00	6.514E-02	0.00	2.601E-04	2.579E-04	2.601E-04	2.579E-04
7 - 8	5.898E-02	0.00	5.764E-02	0.00	5.254E-02	0.00	5.496E-02	0.00	5.078E-02	0.00	2.545E-04	2.523E-04	2.545E-04	2.523E-04
8 - 9	4.533E-02	0.00	4.505E-02	0.00	3.941E-02	0.00	4.269E-02	0.00	3.674E-02	0.00	2.530E-04	2.508E-04	2.530E-04	2.508E-04
9 - 10	3.494E-02	0.00	3.355E-02	0.00	3.107E-02	0.00	3.152E-02	0.00	2.688E-02	0.00	2.446E-04	2.425E-04	2.446E-04	2.425E-04
10 - 11	2.706E-02	0.00	2.639E-02	0.00	2.152E-02	0.00	2.374E-02	0.00	2.010E-02	0.00	2.339E-04	2.318E-04	2.339E-04	2.318E-04
11 - 12	2.021E-02	0.00	1.963E-02	0.00	1.661E-02	0.00	1.849E-02	0.00	1.474E-02	0.00	2.320E-04	2.300E-04	2.320E-04	2.300E-04
12 - 13	1.571E-02	0.00	1.497E-02	0.00	1.226E-02	0.00	1.279E-02	0.00	1.071E-02	0.00	2.285E-04	2.265E-04	2.285E-04	2.265E-04
13 - 14	1.102E-02	0.00	1.073E-02	0.00	8.834E-03	0.00	9.811E-03	0.00	7.792E-03	0.00	2.172E-04	2.153E-04	2.172E-04	2.153E-04
14 - 15	8.578E-03	0.00	8.272E-03	0.00	6.513E-03	0.00	7.360E-03	0.00	5.739E-03	0.00	2.084E-04	2.065E-04	2.084E-04	2.065E-04
15 - 16	6.228E-03	0.00	5.875E-03	0.00	4.725E-03	0.00	5.116E-03	0.00	4.160E-03	0.00	1.969E-04	1.952E-04	1.969E-04	1.952E-04
16 - 17	4.269E-03	0.00	4.180E-03	0.00	3.474E-03	0.00	3.932E-03	0.00	3.030E-03	0.00	1.909E-04	1.892E-04	1.909E-04	1.892E-04
17 - 18	3.085E-03	0.00	3.087E-03	0.00	2.557E-03	0.00	2.892E-03	0.00	2.233E-03	0.00	1.867E-04	1.851E-04	1.867E-04	1.851E-04
18 - 19	2.191E-03	0.00	2.225E-03	0.00	1.834E-03	0.00	2.163E-03	0.00	1.633E-03	0.00	1.688E-04	1.673E-04	1.688E-04	1.673E-04
19 - 20	1.538E-03	0.00	1.659E-03	0.00	1.343E-03	0.00	1.583E-03	0.00	1.183E-03	0.00	1.331E-04	1.319E-04	1.331E-04	1.319E-04
20 - 21	1.108E-03	0.00	1.188E-03	0.00	9.979E-04	0.00	1.169E-03	0.00	8.696E-04	0.00	9.707E-05	9.622E-05	9.707E-05	9.622E-05
21 - 22	7.967E-04	0.00	8.965E-04	0.00	7.246E-04	0.00	8.626E-04	0.00	6.299E-04	0.00	7.163E-05	7.100E-05	7.163E-05	7.100E-05
22 - 23	5.681E-04	0.00	6.326E-04	0.00	5.260E-04	0.00	6.361E-04	0.00	4.588E-04	0.00	5.433E-05	5.386E-05	5.433E-05	5.386E-05
23 - 24	4.159E-04	0.00	4.842E-04	0.00	3.710E-04	0.00	4.771E-04	0.00	3.367E-04	0.00	4.229E-05	4.192E-05	4.229E-05	4.192E-05
24 - 25	3.052E-04	0.00	3.510E-04	0.00	2.933E-04	0.00	3.493E-04	0.00	2.391E-04	0.00	3.451E-05	3.421E-05	3.451E-05	3.421E-05
25 - 30	1.327E-04	0.00	1.537E-04	0.00	1.184E-04	0.00	1.551E-04	0.00	1.023E-04	0.00	1.842E-05	1.826E-05	1.842E-05	1.826E-05
30 - 35	5.873E-06	0.00	6.703E-06	0.00	6.676E-06	0.00	3.615E-05	0.00	6.358E-06	0.00	5.212E-06	5.259E-06	5.212E-06	5.212E-06
35 - 40	1.268E-06	0.00	1.474E-06	0.00	1.095E-06	0.00	1.502E-06	0.00	1.027E-06	0.00	1.384E-06	1.372E-06	1.384E-06	1.372E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.531305 MICROMETERS

FREQUENCY = 2206.870 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.667E-01	0.00	5.720E-01	0.00	4.533E-01	0.00	4.965E-01	0.00	4.607E-01	0.00	1.206E-02	1.196E-02	5.877E-02	5.829E-02
0 - 1	5.687E-01	0.00	4.979E-01	0.00	4.092E-01	0.00	4.430E-01	0.00	4.136E-01	0.00	8.232E-03	8.164E-03	3.705E-02	3.675E-02
1 - 2	4.108E-01	0.00	3.682E-01	0.00	3.254E-01	0.00	3.377E-01	0.00	3.240E-01	0.00	3.592E-03	3.563E-03	1.192E-02	1.182E-02
2 - 3	2.963E-01	0.00	2.729E-01	0.00	2.556E-01	0.00	2.615E-01	0.00	2.539E-01	0.00	1.533E-03	1.520E-03	4.141E-03	4.107E-03
3 - 4	2.150E-01	0.00	2.078E-01	0.00	2.011E-01	0.00	2.052E-01	0.00	1.989E-01	0.00	7.118E-04	7.060E-04	1.809E-03	1.794E-03
4 - 5	1.642E-01	0.00	1.607E-01	0.00	1.596E-01	0.00	1.606E-01	0.00	1.561E-01	0.00	4.432E-04	4.396E-04	6.606E-04	6.552E-04
5 - 6	1.295E-01	0.00	1.275E-01	0.00	1.274E-01	0.00	1.249E-01	0.00	1.234E-01	0.00	3.237E-04	3.211E-04	3.237E-04	3.211E-04
6 - 7	1.012E-01	0.00	1.009E-01	0.00	9.920E-02	0.00	9.848E-02	0.00	9.430E-02	0.00	2.608E-04	2.587E-04	2.608E-04	2.587E-04
7 - 8	8.014E-02	0.00	7.882E-02	0.00	7.526E-02	0.00	7.695E-02	0.00	7.522E-02	0.00	2.552E-04	2.531E-04	2.552E-04	2.531E-04
8 - 9	6.285E-02	0.00	6.273E-02	0.00	5.751E-02	0.00	6.106E-02	0.00	5.534E-02	0.00	2.536E-04	2.515E-04	2.536E-04	2.515E-04
9 - 10	4.929E-02	0.00	4.757E-02	0.00	4.629E-02	0.00	4.605E-02	0.00	4.075E-02	0.00	2.452E-04	2.432E-04	2.452E-04	2.432E-04
10 - 11	3.897E-02	0.00	3.819E-02	0.00	3.239E-02	0.00	3.510E-02	0.00	3.050E-02	0.00	2.345E-04	2.326E-04	2.345E-04	2.326E-04
11 - 12	2.971E-02	0.00	2.898E-02	0.00	2.508E-02	0.00	2.738E-02	0.00	2.238E-02	0.00	2.326E-04	2.307E-04	2.326E-04	2.307E-04
12 - 13	2.360E-02	0.00	2.260E-02	0.00	1.855E-02	0.00	1.892E-02	0.00	1.628E-02	0.00	2.291E-04	2.272E-04	2.291E-04	2.272E-04
13 - 14	1.696E-02	0.00	1.635E-02	0.00	1.339E-02	0.00	1.452E-02	0.00	1.184E-02	0.00	2.177E-04	2.160E-04	2.177E-04	2.160E-04
14 - 15	1.352E-02	0.00	1.262E-02	0.00	9.888E-03	0.00	1.090E-02	0.00	8.721E-03	0.00	2.089E-04	2.072E-04	2.089E-04	2.072E-04
15 - 16	1.007E-02	0.00	8.873E-03	0.00	7.185E-03	0.00	7.575E-03	0.00	6.329E-03	0.00	1.975E-04	1.958E-04	1.975E-04	1.958E-04
16 - 17	7.033E-03	0.00	6.379E-03	0.00	5.295E-03	0.00	5.820E-03	0.00	4.619E-03	0.00	1.914E-04	1.898E-04	1.914E-04	1.898E-04
17 - 18	5.061E-03	0.00	4.711E-03	0.00	3.904E-03	0.00	4.282E-03	0.00	3.412E-03	0.00	1.872E-04	1.856E-04	1.872E-04	1.856E-04
18 - 19	3.536E-03	0.00	3.390E-03	0.00	2.804E-03	0.00	3.202E-03	0.00	2.500E-03	0.00	1.692E-04	1.678E-04	1.692E-04	1.678E-04
19 - 20	2.444E-03	0.00	2.519E-03	0.00	2.055E-03	0.00	2.343E-03	0.00	1.816E-03	0.00	1.334E-04	1.323E-04	1.334E-04	1.323E-04
20 - 21	1.734E-03	0.00	1.797E-03	0.00	1.527E-03	0.00	1.730E-03	0.00	1.337E-03	0.00	9.732E-05	9.652E-05	9.732E-05	9.652E-05
21 - 22	1.229E-03	0.00	1.352E-03	0.00	1.109E-03	0.00	1.277E-03	0.00	9.706E-04	0.00	7.182E-05	7.123E-05	7.182E-05	7.123E-05
22 - 23	8.669E-04	0.00	9.489E-04	0.00	8.051E-04	0.00	9.414E-04	0.00	7.086E-04	0.00	5.447E-05	5.403E-05	5.447E-05	5.403E-05
23 - 24	6.303E-04	0.00	7.226E-04	0.00	5.676E-04	0.00	7.053E-04	0.00	5.211E-04	0.00	4.239E-05	4.205E-05	4.239E-05	4.205E-05
24 - 25	4.594E-04	0.00	5.222E-04	0.00	4.490E-04	0.00	5.136E-04	0.00	3.707E-04	0.00	3.460E-05	3.432E-05	3.460E-05	3.432E-05
25 - 30	1.955E-04	0.00	2.246E-04	0.00	1.804E-04	0.00	2.248E-04	0.00	1.575E-04	0.00	1.847E-05	1.831E-05	1.847E-05	1.831E-05
30 - 35	4.758E-06	0.00	5.480E-06	0.00	4.752E-06	0.00	5.085E-05	0.00	4.294E-06	0.00	5.272E-06	5.229E-06	5.272E-06	5.229E-06
35 - 40	1.057E-06	0.00	1.229E-06	0.00	0.	0.00	1.246E-06	0.00	0.	0.00	1.387E-06	1.376E-06	1.387E-06	1.376E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.499073 MICROMETERS

FREQUENCY = 2222.680 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.508E-01	0.00	2.455E-01	0.00	2.333E-01	0.00	2.380E-01	0.00	2.262E-01	0.00	1.214E-02	1.206E-02	5.915E-02	5.874E-02
0 - 1	2.283E-01	0.00	2.238E-01	0.00	2.095E-01	0.00	2.181E-01	0.00	2.021E-01	0.00	8.284E-03	8.228E-03	3.729E-02	3.704E-02
1 - 2	1.622E-01	0.00	1.604E-01	0.00	1.674E-01	0.00	1.726E-01	0.00	1.601E-01	0.00	3.615E-03	3.590E-03	1.200E-02	1.191E-02
2 - 3	1.415E-01	0.00	1.431E-01	0.00	1.317E-01	0.00	1.363E-01	0.00	1.249E-01	0.00	1.542E-03	1.532E-03	4.167E-03	4.139E-03
3 - 4	1.163E-01	0.00	1.127E-01	0.00	1.026E-01	0.00	1.081E-01	0.00	9.651E-02	0.00	7.164E-04	7.115E-04	1.820E-03	1.808E-03
4 - 5	9.030E-02	0.00	8.769E-02	0.00	7.943E-02	0.00	8.402E-02	0.00	7.361E-02	0.00	4.460E-04	4.430E-04	6.649E-04	6.603E-04
5 - 6	7.038E-02	0.00	6.869E-02	0.00	5.923E-02	0.00	6.410E-02	0.00	5.591E-02	0.00	3.258E-04	3.236E-04	3.258E-04	3.236E-04
6 - 7	5.385E-02	0.00	5.305E-02	0.00	4.620E-02	0.00	4.869E-02	0.00	4.107E-02	0.00	2.625E-04	2.607E-04	2.625E-04	2.607E-04
7 - 8	4.148E-02	0.00	3.997E-02	0.00	3.388E-02	0.00	3.657E-02	0.00	3.128E-02	0.00	2.568E-04	2.551E-04	2.568E-04	2.551E-04
8 - 9	3.081E-02	0.00	3.049E-02	0.00	2.495E-02	0.00	2.771E-02	0.00	2.241E-02	0.00	2.552E-04	2.535E-04	2.552E-04	2.535E-04
9 - 10	2.336E-02	0.00	2.226E-02	0.00	1.919E-02	0.00	2.102E-02	0.00	1.636E-02	0.00	2.468E-04	2.451E-04	2.468E-04	2.451E-04
10 - 11	1.761E-02	0.00	1.703E-02	0.00	1.328E-02	0.00	1.492E-02	0.00	1.225E-02	0.00	2.360E-04	2.344E-04	2.360E-04	2.344E-04
11 - 12	1.283E-02	0.00	1.239E-02	0.00	1.021E-02	0.00	1.162E-02	0.00	9.015E-03	0.00	2.341E-04	2.325E-04	2.341E-04	2.325E-04
12 - 13	9.734E-03	0.00	9.209E-03	0.00	7.548E-03	0.00	8.120E-03	0.00	6.575E-03	0.00	2.305E-04	2.290E-04	2.305E-04	2.290E-04
13 - 14	6.677E-03	0.00	6.576E-03	0.00	5.453E-03	0.00	6.239E-03	0.00	4.852E-03	0.00	2.191E-04	2.176E-04	2.191E-04	2.176E-04
14 - 15	5.099E-03	0.00	5.069E-03	0.00	4.022E-03	0.00	4.696E-03	0.00	3.543E-03	0.00	2.102E-04	2.088E-04	2.102E-04	2.088E-04
15 - 16	3.650E-03	0.00	3.573E-03	0.00	2.921E-03	0.00	3.277E-03	0.00	2.577E-03	0.00	1.997E-04	1.974E-04	1.997E-04	1.974E-04
16 - 17	2.485E-03	0.00	2.575E-03	0.00	2.146E-03	0.00	2.527E-03	0.00	1.977E-03	0.00	1.965E-04	1.913E-04	1.926E-04	1.913E-04
17 - 18	1.800E-03	0.00	1.905E-03	0.00	1.579E-03	0.00	1.863E-03	0.00	1.378E-03	0.00	1.971E-04	1.884E-04	1.971E-04	1.884E-04
18 - 19	1.289E-03	0.00	1.389E-03	0.00	1.133E-03	0.00	1.395E-03	0.00	1.006E-03	0.00	1.703E-04	1.691E-04	1.703E-04	1.691E-04
19 - 20	9.151E-04	0.00	1.032E-03	0.00	8.285E-04	0.00	1.025E-03	0.00	7.284E-04	0.00	1.342E-04	1.333E-04	1.342E-04	1.333E-04
20 - 21	6.682E-04	0.00	7.449E-04	0.00	6.162E-04	0.00	7.559E-04	0.00	5.340E-04	0.00	9.794E-05	9.728E-05	9.794E-05	9.728E-05
21 - 22	4.878E-04	0.00	5.648E-04	0.00	4.476E-04	0.00	5.593E-04	0.00	3.863E-04	0.00	7.227E-05	7.178E-05	7.227E-05	7.178E-05
22 - 23	3.525E-04	0.00	4.029E-04	0.00	3.251E-04	0.00	4.128E-04	0.00	2.807E-04	0.00	5.482E-05	5.445E-05	5.482E-05	5.445E-05
23 - 24	2.604E-04	0.00	3.101E-04	0.00	2.299E-04	0.00	3.100E-04	0.00	2.055E-04	0.00	4.267E-05	4.237E-05	4.267E-05	4.237E-05
24 - 25	1.932E-04	0.00	2.257E-04	0.00	1.811E-04	0.00	2.292E-04	0.00	1.459E-04	0.00	3.482E-05	3.459E-05	3.482E-05	3.459E-05
25 - 30	8.697E-05	0.00	1.023E-04	0.00	7.364E-05	0.00	1.048E-04	0.00	6.285E-05	0.00	1.858E-05	1.846E-05	1.858E-05	1.846E-05
30 - 35	1.433E-05	0.00	1.652E-05	0.00	1.515E-05	0.00	2.608E-05	0.00	1.407E-05	0.00	5.306E-06	5.270E-06	5.306E-06	5.270E-06
35 - 40	3.273E-06	0.00	3.870E-06	0.00	2.646E-06	0.00	4.015E-06	0.00	2.413E-06	0.00	1.396E-06	1.387E-06	1.396E-06	1.387E-06
40 - 45	0.	0.00	1.072E-06	0.00	0.	0.00	1.165E-06	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.479586 MICROMETERS

FREQUENCY = 2232.150 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.551E-01	0.00	6.305E-01	0.00	5.712E-01	0.00	6.032E-01	0.00	5.441E-01	0.00	1.218E-02	1.211E-02	5.937E-02	5.901E-02
0 - 1	6.044E-01	0.00	5.854E-01	0.00	5.234E-01	0.00	5.611E-01	0.00	4.957E-01	0.00	8.316E-03	8.266E-03	3.743E-02	3.721E-02
1 - 2	4.968E-01	0.00	4.874E-01	0.00	4.329E-01	0.00	4.581E-01	0.00	4.102E-01	0.00	3.629E-03	3.607E-03	1.204E-02	1.197E-02
2 - 3	4.128E-01	0.00	4.006E-01	0.00	3.544E-01	0.00	3.748E-01	0.00	3.324E-01	0.00	1.548E-03	1.539E-03	4.183E-03	4.158E-03
3 - 4	3.414E-01	0.00	3.278E-01	0.00	2.876E-01	0.00	3.095E-01	0.00	2.681E-01	0.00	7.191E-04	7.148E-04	1.827E-03	1.816E-03
4 - 5	2.745E-01	0.00	2.643E-01	0.00	2.317E-01	0.00	2.503E-01	0.00	2.127E-01	0.00	4.477E-04	4.450E-04	6.674E-04	6.634E-04
5 - 6	2.222E-01	0.00	2.157E-01	0.00	1.797E-01	0.00	1.987E-01	0.00	1.680E-01	0.00	3.270E-04	3.251E-04	3.270E-04	3.251E-04
6 - 7	1.764E-01	0.00	1.732E-01	0.00	1.460E-01	0.00	1.564E-01	0.00	1.279E-01	0.00	2.635E-04	2.619E-04	2.635E-04	2.619E-04
7 - 8	1.396E-01	0.00	1.352E-01	0.00	1.108E-01	0.00	1.214E-01	0.00	1.010E-01	0.00	2.578E-04	2.562E-04	2.578E-04	2.562E-04
8 - 9	1.090E-01	0.00	1.064E-01	0.00	8.424E-02	0.00	9.477E-02	0.00	7.461E-02	0.00	2.562E-04	2.547E-04	2.562E-04	2.547E-04
9 - 10	8.386E-02	0.00	7.962E-02	0.00	6.666E-02	0.00	6.995E-02	0.00	5.659E-02	0.00	2.477E-04	2.463E-04	2.477E-04	2.463E-04
10 - 11	6.440E-02	0.00	6.235E-02	0.00	4.732E-02	0.00	5.375E-02	0.00	4.409E-02	0.00	2.369E-04	2.355E-04	2.369E-04	2.355E-04
11 - 12	4.763E-02	0.00	4.592E-02	0.00	3.777E-02	0.00	4.370E-02	0.00	3.352E-02	0.00	2.350E-04	2.336E-04	2.350E-04	2.336E-04
12 - 13	3.546E-02	0.00	3.445E-02	0.00	2.871E-02	0.00	3.134E-02	0.00	2.511E-02	0.00	2.314E-04	2.300E-04	2.314E-04	2.300E-04
13 - 14	2.499E-02	0.00	2.485E-02	0.00	2.119E-02	0.00	2.480E-02	0.00	1.875E-02	0.00	2.200E-04	2.186E-04	2.200E-04	2.186E-04
14 - 15	1.903E-02	0.00	1.966E-02	0.00	1.588E-02	0.00	1.905E-02	0.00	1.407E-02	0.00	2.110E-04	2.098E-04	2.110E-04	2.098E-04
15 - 16	1.354E-02	0.00	1.410E-02	0.00	1.167E-02	0.00	1.351E-02	0.00	1.033E-02	0.00	1.995E-04	1.983E-04	1.995E-04	1.983E-04
16 - 17	9.290E-03	0.00	1.030E-02	0.00	8.656E-03	0.00	1.054E-02	0.00	7.574E-03	0.00	1.933E-04	1.922E-04	1.933E-04	1.922E-04
17 - 18	6.737E-03	0.00	7.693E-03	0.00	6.409E-03	0.00	7.643E-03	0.00	5.601E-03	0.00	1.891E-04	1.879E-04	1.891E-04	1.879E-04
18 - 19	4.928E-03	0.00	5.621E-03	0.00	4.610E-03	0.00	5.915E-03	0.00	4.101E-03	0.00	1.709E-04	1.699E-04	1.709E-04	1.699E-04
19 - 20	3.572E-03	0.00	4.253E-03	0.00	3.384E-03	0.00	4.362E-03	0.00	2.970E-03	0.00	1.348E-04	1.340E-04	1.348E-04	1.340E-04
20 - 21	2.662E-03	0.00	3.090E-03	0.00	2.526E-03	0.00	3.234E-03	0.00	2.180E-03	0.00	9.832E-05	9.773E-05	9.832E-05	9.773E-05
21 - 22	1.984E-03	0.00	2.362E-03	0.00	1.840E-03	0.00	2.398E-03	0.00	1.575E-03	0.00	7.255E-05	7.211E-05	7.255E-05	7.211E-05
22 - 23	1.455E-03	0.00	1.696E-03	0.00	1.339E-03	0.00	1.774E-03	0.00	1.143E-03	0.00	5.503E-05	5.470E-05	5.503E-05	5.470E-05
23 - 24	1.087E-03	0.00	1.320E-03	0.00	9.465E-04	0.00	1.338E-03	0.00	8.368E-04	0.00	4.283E-05	4.257E-05	4.283E-05	4.257E-05
24 - 25	8.138E-04	0.00	1.066E-04	0.00	7.482E-04	0.00	9.963E-04	0.00	5.910E-04	0.00	3.496E-05	3.475E-05	3.496E-05	3.475E-05
25 - 30	3.779E-04	0.00	4.489E-04	0.00	3.056E-04	0.00	4.651E-04	0.00	2.580E-04	0.00	1.865E-05	1.854E-05	1.865E-05	1.854E-05
30 - 35	2.396E-05	0.00	2.709E-05	0.00	2.824E-05	0.00	1.202E-04	0.00	2.647E-05	0.00	5.326E-06	5.294E-06	5.326E-06	5.294E-06
35 - 40	4.837E-06	0.	5.489E-06	0.00	4.502E-06	0.00	5.446E-06	0.00	4.386E-06	0.00	1.402E-06	1.393E-06	1.402E-06	1.393E-06
40 - 45	1.091E-06	0.	1.237E-06	0.00	0.	0.00	1.242E-06	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.455573 MICROMETERS

FREQUENCY = 2244.380 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.756E+00	0.00	2.758E+00	0.00	2.785E+00	0.00	2.748E+00	0.00	2.785E+00	0.00	1.224E-02	1.218E-02	5.966E-02	5.937E-02
0 - 1	2.624E+00	0.00	2.631E+00	0.00	2.648E+00	0.00	2.645E+00	0.00	2.657E+00	0.00	8.357E-03	8.315E-03	3.762E-02	3.743E-02
1 - 2	2.295E+00	0.00	2.315E+00	0.00	2.322E+00	0.00	2.297E+00	0.00	2.305E+00	0.00	3.647E-03	3.628E-03	1.210E-02	1.204E-02
2 - 3	2.001E+00	0.00	2.000E+00	0.00	1.996E+00	0.00	1.985E+00	0.00	1.968E+00	0.00	1.556E-03	1.548E-03	4.203E-03	4.183E-03
3 - 4	1.730E+00	0.00	1.719E+00	0.00	1.695E+00	0.00	1.712E+00	0.00	1.662E+00	0.00	7.226E-04	7.190E-04	1.836E-03	1.827E-03
4 - 5	1.460E+00	0.00	1.441E+00	0.00	1.427E+00	0.00	1.436E+00	0.00	1.377E+00	0.00	4.499E-04	4.477E-04	6.707E-04	6.673E-04
5 - 6	1.228E+00	0.00	1.220E+00	0.00	1.150E+00	0.00	1.189E+00	0.00	1.133E+00	0.00	3.286E-04	3.270E-04	3.286E-04	3.270E-04
6 - 7	1.009E+00	0.00	1.013E+00	0.00	9.604E-01	0.00	9.691E-01	0.00	8.951E-01	0.00	2.640E-04	2.634E-04	2.648E-04	2.634E-04
7 - 8	8.220E-01	0.00	8.122E-01	0.00	7.495E-01	0.00	7.792E-01	0.00	7.241E-01	0.00	2.590E-04	2.578E-04	2.590E-04	2.578E-04
8 - 9	6.656E-01	0.00	6.538E-01	0.00	5.845E-01	0.00	6.266E-01	0.00	5.457E-01	0.00	2.575E-04	2.562E-04	2.575E-04	2.562E-04
9 - 10	5.245E-01	0.00	5.059E-01	0.00	4.668E-01	0.00	4.775E-01	0.00	4.117E-01	0.00	2.490E-04	2.477E-04	2.490E-04	2.477E-04
10 - 11	4.160E-01	0.00	4.067E-01	0.00	3.370E-01	0.00	3.674E-01	0.00	3.140E-01	0.00	2.380E-04	2.369E-04	2.380E-04	2.369E-04
11 - 12	3.167E-01	0.00	3.090E-01	0.00	2.622E-01	0.00	2.914E-01	0.00	2.342E-01	0.00	2.361E-04	2.350E-04	2.361E-04	2.350E-04
12 - 13	2.496E-01	0.00	2.380E-01	0.00	1.964E-01	0.00	2.152E-01	0.00	1.728E-01	0.00	2.326E-04	2.314E-04	2.326E-04	2.314E-04
13 - 14	1.773E-01	0.00	1.729E-01	0.00	1.441E-01	0.00	1.595E-01	0.00	1.276E-01	0.00	2.210E-04	2.199E-04	2.210E-04	2.199E-04
14 - 15	1.390E-01	0.00	1.344E-01	0.00	1.066E-01	0.00	1.200E-01	0.00	9.464E-02	0.00	2.121E-04	2.110E-04	2.121E-04	2.110E-04
15 - 16	1.015E-01	0.00	9.533E-02	0.00	7.775E-02	0.00	8.424E-02	0.00	6.863E-02	0.00	2.004E-04	1.995E-04	2.004E-04	1.995E-04
16 - 17	6.987E-02	0.00	6.693E-02	0.00	5.740E-02	0.00	6.515E-02	0.00	5.022E-02	0.00	1.943E-04	1.933E-04	1.943E-04	1.933E-04
17 - 18	5.076E-02	0.00	5.115E-02	0.00	4.249E-02	0.00	4.804E-02	0.00	3.704E-02	0.00	1.900E-04	1.891E-04	1.900E-04	1.891E-04
18 - 19	3.621E-02	0.00	3.701E-02	0.00	3.055E-02	0.00	3.592E-02	0.00	2.715E-02	0.00	1.718E-04	1.709E-04	1.718E-04	1.709E-04
19 - 20	2.552E-02	0.00	2.757E-02	0.00	2.231E-02	0.00	2.646E-02	0.00	1.971E-02	0.00	1.354E-04	1.347E-04	1.354E-04	1.347E-04
20 - 21	1.844E-02	0.00	1.981E-02	0.00	1.662E-02	0.00	1.948E-02	0.00	1.452E-02	0.00	9.880E-05	9.831E-05	9.880E-05	9.831E-05
21 - 22	1.329E-02	0.00	1.495E-02	0.00	1.210E-02	0.00	1.446E-02	0.00	1.051E-02	0.00	7.290E-05	7.254E-05	7.290E-05	7.254E-05
22 - 23	9.496E-03	0.00	1.060E-02	0.00	8.791E-03	0.00	1.068E-02	0.00	7.635E-03	0.00	5.530E-05	5.503E-05	5.530E-05	5.503E-05
23 - 24	6.956E-03	0.00	8.121E-03	0.00	6.239E-03	0.00	7.957E-03	0.00	5.648E-03	0.00	4.304E-05	4.282E-05	4.304E-05	4.282E-05
24 - 25	5.118E-03	0.00	5.863E-03	0.00	4.890E-03	0.00	5.846E-03	0.00	3.990E-03	0.00	3.513E-05	3.495E-05	3.513E-05	3.495E-05
25 - 30	2.229E-03	0.00	2.585E-03	0.00	1.984E-03	0.00	2.611E-03	0.00	1.713E-03	0.00	1.875E-05	1.865E-05	1.875E-05	1.865E-05
30 - 35	5.749E-05	0.00	6.552E-05	0.00	5.878E-05	0.00	6.090E-04	0.00	5.311E-05	0.00	5.352E-06	5.325E-06	5.352E-06	5.325E-06
35 - 40	1.689E-05	0.00	1.974E-05	0.00	1.272E-05	0.00	2.070E-05	0.00	1.118E-05	0.00	1.408E-06	1.402E-06	1.408E-06	1.402E-06
40 - 45	7.539E-06	0.00	9.218E-06	0.00	4.951E-06	0.00	1.033E-05	0.00	3.533E-06	0.00	0.	0.	0.	0.
45 - 50	4.112E-06	0.00	5.348E-06	0.00	2.830E-06	0.00	5.855E-06	0.00	1.878E-06	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.422978 MICROMETERS

FREQUENCY = 2260.920 WAVENUMBERS

		TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
	0	3.891E+00	0.00	3.918E+00	0.00	4.128E+00	0.00	3.941E+00	0.00	4.239E+00	0.00	1.232E-02	1.228E-02	6.005E-02	5.984E-02
0 -	1	3.473E+00	0.00	3.507E+00	0.00	3.649E+00	0.00	3.530E+00	0.00	3.727E+00	0.00	8.412E-03	8.382E-03	3.786E-02	3.773E-02
1 -	2	2.739E+00	0.00	2.797E+00	0.00	2.873E+00	0.00	2.813E+00	0.00	2.872E+00	0.00	3.671E-03	3.657E-03	1.218E-02	1.214E-02
2 -	3	2.251E+00	0.00	2.281E+00	0.00	2.257E+00	0.00	2.238E+00	0.00	2.220E+00	0.00	1.566E-03	1.561E-03	4.231E-03	4.216E-03
3 -	4	1.810E+00	0.00	1.804E+00	0.00	1.768E+00	0.00	1.765E+00	0.00	1.735E+00	0.00	7.274E-04	7.248E-04	1.848E-03	1.842E-03
4 -	5	1.433E+00	0.00	1.394E+00	0.00	1.384E+00	0.00	1.377E+00	0.00	1.329E+00	0.00	4.529E-04	4.513E-04	6.751E-04	6.727E-04
5 -	6	1.136E+00	0.00	1.112E+00	0.00	1.066E+00	0.00	1.105E+00	0.00	1.023E+00	0.00	3.306E-04	3.295E-04	3.308E-04	3.296E-04
6 -	7	8.893E-01	0.00	8.953E-01	0.00	8.228E-01	0.00	8.871E-01	0.00	7.769E-01	0.00	2.665E-04	2.656E-04	2.665E-04	2.656E-04
7 -	8	6.915E-01	0.00	6.858E-01	0.00	6.239E-01	0.00	6.926E-01	0.00	5.847E-01	0.00	2.608E-04	2.598E-04	2.608E-04	2.598E-04
8 -	9	5.435E-01	0.00	5.144E-01	0.00	4.765E-01	0.00	5.006E-01	0.00	4.353E-01	0.00	2.592E-04	2.582E-04	2.592E-04	2.582E-04
9 -	10	4.115E-01	0.00	4.019E-01	0.00	3.453E-01	0.00	3.764E-01	0.00	3.193E-01	0.00	2.506E-04	2.497E-04	2.506E-04	2.497E-04
10 -	11	3.161E-01	0.00	3.094E-01	0.00	2.635E-01	0.00	2.788E-01	0.00	2.333E-01	0.00	2.396E-04	2.388E-04	2.396E-04	2.388E-04
11 -	12	2.370E-01	0.00	2.349E-01	0.00	1.908E-01	0.00	2.120E-01	0.00	1.703E-01	0.00	2.377E-04	2.368E-04	2.377E-04	2.368E-04
12 -	13	1.829E-01	0.00	1.793E-01	0.00	1.409E-01	0.00	1.547E-01	0.00	1.221E-01	0.00	2.343E-04	2.333E-04	2.341E-04	2.333E-04
13 -	14	1.289E-01	0.00	1.262E-01	0.00	1.052E-01	0.00	1.159E-01	0.00	9.211E-02	0.00	2.225E-04	2.217E-04	2.225E-04	2.217E-04
14 -	15	9.977E-02	0.00	9.859E-02	0.00	7.964E-02	0.00	8.487E-02	0.00	6.644E-02	0.00	2.135E-04	2.127E-04	2.135E-04	2.127E-04
15 -	16	7.202E-02	0.00	6.766E-02	0.00	5.506E-02	0.00	5.990E-02	0.00	4.852E-02	0.00	2.016E-04	2.011E-04	2.016E-04	2.011E-04
16 -	17	4.927E-02	0.00	4.873E-02	0.00	4.030E-02	0.00	4.643E-02	0.00	3.551E-02	0.00	1.956E-04	1.949E-04	1.956E-04	1.949E-04
17 -	18	3.07E-02	0.00	3.510E-02	0.00	3.000E-02	0.00	3.395E-02	0.00	2.587E-02	0.00	1.913E-04	1.906E-04	1.913E-04	1.906E-04
18 -	19	533E-02	0.00	2.614E-02	0.00	2.157E-02	0.00	2.500E-02	0.00	1.905E-02	0.00	1.729E-04	1.723E-04	1.729E-04	1.723E-04
19 -	20	1.762E-02	0.00	1.916E-02	0.00	1.548E-02	0.00	1.375E-02	0.00	1.375E-02	0.00	1.363E-04	1.358E-04	1.363E-04	1.358E-04
20 -	21	1.286E-02	0.00	1.387E-02	0.00	1.154E-02	0.00	1.351E-02	0.00	1.015E-02	0.00	9.945E-05	9.910E-05	9.945E-05	9.910E-05
21 -	22	9.262E-03	0.00	1.034E-02	0.00	8.415E-03	0.00	1.022E-02	0.00	7.315E-03	0.00	7.338E-05	7.312E-05	7.338E-05	7.312E-05
22 -	23	6.625E-03	0.00	7.451E-03	0.00	6.116E-03	0.00	7.542E-03	0.00	5.237E-03	0.00	5.566E-05	5.547E-05	5.566E-05	5.547E-05
23 -	24	4.834E-03	0.00	5.701E-03	0.00	4.445E-03	0.00	5.441E-03	0.00	3.972E-03	0.00	4.332E-05	4.317E-05	4.332E-05	4.317E-05
24 -	25	3.581E-03	0.00	4.026E-03	0.00	3.347E-03	0.00	4.049E-03	0.00	2.765E-03	0.00	3.536E-05	3.523E-05	3.536E-05	3.523E-05
25 -	30	1.554E-03	0.00	1.812E-03	0.00	1.382E-03	0.00	1.833E-03	0.00	1.192E-03	0.00	1.807E-05	1.866E-05	1.807E-05	1.881E-05
30 -	35	3.901E-05	0.00	4.620E-05	0.00	3.737E-05	0.00	4.276E-04	0.00	3.295E-05	0.00	5.367E-06	5.368E-06	5.387E-06	5.362E-06
35 -	40	9.324E-06	0.00	1.108E-05	0.00	7.260E-06	0.00	1.159E-05	0.00	6.488E-06	0.00	1.418E-06	1.413E-06	1.418E-06	1.413E-06
40 -	45	2.538E-06	0.00	3.172E-06	0.00	1.665E-06	0.00	3.495E-06	0.00	1.324E-06	0.00	0.	0.	0.	0.
45 -	50	0.	0.00	1.020E-06	0.00	0.	0.00	1.141E-06	0.00	0.	0.00	0.	0.	0.	0.
50 -	70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -	100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.413744 MICROMETERS

FREQUENCY = 2265.650 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.767E+00	0.00	1.774E+00	0.00	1.873E+00	0.00	1.781E+00	0.00	1.953E+00	0.00	1.235E-02	1.231E-02	6.017E-02	5.998E-02
0 - 1	1.580E+00	0.00	1.592E+00	0.00	1.661E+00	0.00	1.602E+00	0.00	1.717E+00	0.00	8.427E-03	8.401E-03	3.794E-02	3.782E-02
1 - 2	1.279E+00	0.00	1.277E+00	0.00	1.322E+00	0.00	1.285E+00	0.00	1.335E+00	0.00	3.677E-03	3.666E-03	1.220E-02	1.216E-02
2 - 3	1.034E+00	0.00	1.039E+00	0.00	1.050E+00	0.00	1.032E+00	0.00	1.045E+00	0.00	1.569E-03	1.564E-03	4.239E-03	4.226E-03
3 - 4	8.393E-01	0.00	8.355E-01	0.00	8.324E-01	0.00	8.313E-01	0.00	8.274E-01	0.00	7.287E-04	7.264E-04	1.852E-03	1.846E-03
4 - 5	6.681E-01	0.00	6.519E-01	0.00	6.611E-01	0.00	6.484E-01	0.00	6.446E-01	0.00	4.537E-04	4.523E-04	6.763E-04	6.742E-04
5 - 6	5.358E-01	0.00	5.310E-01	0.00	5.170E-01	0.00	5.273E-01	0.00	5.066E-01	0.00	3.314E-04	3.304E-04	3.314E-04	3.304E-04
6 - 7	4.233E-01	0.00	4.280E-01	0.00	4.060E-01	0.00	4.057E-01	0.00	3.929E-01	0.00	2.670E-04	2.662E-04	2.670E-04	2.662E-04
7 - 8	3.342E-01	0.00	3.322E-01	0.00	3.134E-01	0.00	3.219E-01	0.00	3.027E-01	0.00	2.612E-04	2.604E-04	2.612E-04	2.604E-04
8 - 9	2.643E-01	0.00	2.531E-01	0.00	2.439E-01	0.00	2.516E-01	0.00	2.301E-01	0.00	2.597E-04	2.588E-04	2.597E-04	2.588E-04
9 - 10	2.048E-01	0.00	2.010E-01	0.00	1.805E-01	0.00	1.933E-01	0.00	1.700E-01	0.00	2.511E-04	2.503E-04	2.511E-04	2.503E-04
10 - 11	1.614E-01	0.00	1.576E-01	0.00	1.394E-01	0.00	1.450E-01	0.00	1.245E-01	0.00	2.401E-04	2.393E-04	2.401E-04	2.393E-04
11 - 12	1.226E-01	0.00	1.216E-01	0.00	1.013E-01	0.00	1.104E-01	0.00	9.105E-02	0.00	2.381E-04	2.374E-04	2.381E-04	2.374E-04
12 - 13	9.667E-02	0.00	9.207E-02	0.00	7.506E-02	0.00	7.866E-02	0.00	6.537E-02	0.00	2.345E-04	2.338E-04	2.345E-04	2.338E-04
13 - 14	6.990E-02	0.00	6.787E-02	0.00	5.619E-02	0.00	6.054E-02	0.00	4.988E-02	0.00	2.229E-04	2.222E-04	2.229E-04	2.222E-04
14 - 15	5.549E-02	0.00	5.144E-02	0.00	4.063E-02	0.00	4.437E-02	0.00	3.563E-02	0.00	2.139E-04	2.132E-04	2.139E-04	2.132E-04
15 - 16	4.129E-02	0.00	3.645E-02	0.00	2.957E-02	0.00	3.133E-02	0.00	2.606E-02	0.00	2.021E-04	2.015E-04	2.021E-04	2.015E-04
16 - 17	2.878E-02	0.00	2.626E-02	0.00	2.169E-02	0.00	2.430E-02	0.00	1.912E-02	0.00	1.959E-04	1.952E-04	1.959E-04	1.952E-04
17 - 18	2.075E-02	0.00	1.946E-02	0.00	1.618E-02	0.00	1.778E-02	0.00	1.397E-02	0.00	1.916E-04	1.910E-04	1.916E-04	1.910E-04
18 - 19	1.448E-02	0.00	1.408E-02	0.00	1.166E-02	0.00	1.311E-02	0.00	1.033E-02	0.00	1.732E-04	1.727E-04	1.732E-04	1.727E-04
19 - 20	1.002E-02	0.00	1.028E-02	0.00	8.377E-03	0.00	9.823E-03	0.00	7.461E-03	0.00	1.366E-04	1.361E-04	1.366E-04	1.361E-04
20 - 21	7.123E-03	0.00	7.422E-03	0.00	6.247E-03	0.00	7.083E-03	0.00	5.520E-03	0.00	9.964E-05	9.932E-05	9.964E-05	9.932E-05
21 - 22	5.053E-03	0.00	5.517E-03	0.00	4.555E-03	0.00	5.346E-03	0.00	3.987E-03	0.00	7.352E-05	7.329E-05	7.352E-05	7.329E-05
22 - 23	3.577E-03	0.00	3.956E-03	0.00	3.311E-03	0.00	3.954E-03	0.00	2.861E-03	0.00	5.577E-05	5.559E-05	5.577E-05	5.559E-05
23 - 24	2.592E-03	0.00	3.013E-03	0.00	2.406E-03	0.00	2.850E-03	0.00	2.174E-03	0.00	4.340E-05	4.327E-05	4.340E-05	4.327E-05
24 - 25	1.908E-03	0.00	2.123E-03	0.00	1.813E-03	0.00	2.111E-03	0.00	1.518E-03	0.00	3.542E-05	3.531E-05	3.542E-05	3.531E-05
25 - 30	8.117E-04	0.00	9.396E-04	0.00	7.458E-04	0.00	9.437E-04	0.00	6.489E-04	0.00	1.890E-05	1.884E-05	1.890E-05	1.884E-05
30 - 35	3.649E-05	0.00	4.230E-05	0.00	3.395E-05	0.00	2.150E-04	0.00	2.944E-05	0.00	5.397E-06	5.380E-06	5.397E-06	5.380E-06
35 - 40	8.430E-06	0.00	9.883E-06	0.00	6.687E-06	0.00	1.013E-05	0.00	5.895E-06	0.00	1.420E-06	1.416E-06	1.420E-06	1.416E-06
40 - 45	2.188E-06	0.00	2.620E-06	0.00	1.513E-06	0.00	2.770E-06	0.00	1.226E-06	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.373592 MICROMETERS

FREQUENCY = 2286.450 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.056E+00	0.00	4.647E+00	0.00	3.527E+00	0.00	4.205E+00	0.00	2.972E+00	0.00	1.245E-02	1.243E-02	6.066E-02	6.057E-02
0 - 1	4.416E+00	0.00	4.133E+00	0.00	3.110E+00	0.00	3.717E+00	0.00	2.697E+00	0.00	8.497E-03	8.485E-03	3.825E-02	3.819E-02
1 - 2	3.498E+00	0.00	3.231E+00	0.00	2.440E+00	0.00	2.856E+00	0.00	2.155E+00	0.00	3.708E-03	3.702E-03	1.230E-02	1.229E-02
2 - 3	2.663E+00	0.00	2.517E+00	0.00	1.908E+00	0.00	2.190E+00	0.00	1.666E+00	0.00	1.582E-03	1.580E-03	4.274E-03	4.268E-03
3 - 4	2.067E+00	0.00	1.915E+00	0.00	1.459E+00	0.00	1.695E+00	0.00	1.285E+00	0.00	7.347E-04	7.337E-04	1.867E-03	1.864E-03
4 - 5	1.527E+00	0.00	1.408E+00	0.00	1.093E+00	0.00	1.256E+00	0.00	9.485E-01	0.00	4.575E-04	4.568E-04	6.819E-04	6.809E-04
5 - 5	1.141E+00	0.00	1.078E+00	0.00	8.053E-01	0.00	9.522E-01	0.00	6.971E-01	0.00	3.341E-04	3.337E-04	3.341E-04	3.337E-04
6 - 7	8.375E-01	0.00	8.143E-01	0.00	5.948E-01	0.00	6.759E-01	0.00	5.061E-01	0.00	2.692E-04	2.688E-04	2.692E-04	2.688E-04
7 - 8	6.071E-01	0.00	5.851E-01	0.00	4.315E-01	0.00	4.942E-01	0.00	3.657E-01	0.00	2.6 E-04	2.630E-04	2.634E-04	2.630E-04
8 - 9	4.443E-01	0.00	4.119E-01	0.00	3.157E-01	0.00	3.561E-01	0.00	2.663E-01	0.00	2.618E-04	2.614E-04	2.618E-04	2.614E-04
9 - 10	3.168E-01	0.00	3.020E-01	0.00	2.199E-01	0.00	2.525E-01	0.00	1.954E-01	0.00	2.531E-04	2.528E-04	2.531E-04	2.528E-04
10 - 11	2.285E-01	0.00	2.187E-01	0.00	1.654E-01	0.00	1.835E-01	0.00	1.445E-01	0.00	2.420E-04	2.417E-04	2.420E-04	2.417E-04
11 - 12	1.606E-01	0.00	1.563E-01	0.00	1.207E-01	0.00	1.416E-01	0.00	1.066E-01	0.00	2.401E-04	2.397E-04	2.401E-04	2.397E-04
12 - 13	1.176E-01	0.00	1.101E-01	0.00	8.966E-02	0.00	1.026E-01	0.00	7.715E-02	0.00	2.365E-04	2.361E-04	2.365E-04	2.361E-04
13 - 14	7.912E-02	0.00	7.893E-02	0.00	6.719E-02	0.00	7.928E-02	0.00	5.925E-02	0.00	2.247E-04	2.244E-04	2.247E-04	2.244E-04
14 - 15	5.914E-02	0.00	6.022E-02	0.00	4.858E-02	0.00	5.860E-02	0.00	4.256E-02	0.00	2.156E-04	2.153E-04	2.156E-04	2.153E-04
15 - 16	4.179E-02	0.00	4.290E-02	0.00	3.530E-02	0.00	4.166E-02	0.00	3.115E-02	0.00	2.038E-04	2.035E-04	2.038E-04	2.035E-04
16 - 17	2.839E-02	0.00	3.103E-02	0.00	2.583E-02	0.00	3.248E-02	0.00	2.276E-02	0.00	1.975E-04	1.973E-04	1.975E-04	1.973E-04
17 - 18	2.062E-02	0.00	2.308E-02	0.00	1.921E-02	0.00	2.387E-02	0.00	1.654E-02	0.00	1.932E-04	1.929E-04	1.932E-04	1.929E-04
18 - 19	1.482E-02	0.00	1.684E-02	0.00	1.378E-02	0.00	1.767E-02	0.00	1.217E-02	0.00	1.746E-04	1.744E-04	1.746E-04	1.744E-04
19 - 20	1.061E-02	0.00	1.249E-02	0.00	9.891E-03	0.00	1.327E-02	0.00	8.734E-03	0.00	1.377E-04	1.375E-04	1.377E-04	1.375E-04
20 - 21	7.847E-03	0.00	9.148E-03	0.00	7.388E-03	0.00	9.591E-03	0.00	6.422E-03	0.00	1.005E-04	1.003E-04	1.005E-04	1.003E-04
21 - 22	5.822E-03	0.00	6.902E-03	0.00	5.391E-03	0.00	7.249E-03	0.00	4.613E-03	0.00	7.413E-05	7.402E-05	7.413E-05	7.402E-05
22 - 23	4.278E-03	0.00	5.060E-03	0.00	3.922E-03	0.00	5.370E-03	0.00	3.290E-03	0.00	5.623E-05	5.615E-05	5.623E-05	5.615E-05
23 - 24	3.185E-03	0.00	3.943E-03	0.00	2.852E-03	0.00	3.906E-03	0.00	2.484E-03	0.00	4.376E-05	4.370E-05	4.376E-05	4.371E-05
24 - 25	2.411E-03	0.00	2.823E-03	0.00	2.150E-03	0.00	2.968E-03	0.00	1.723E-03	0.00	3.571E-05	3.566E-05	3.571E-05	3.566E-05
25 - 30	1.137E-03	0.00	1.371E-03	0.00	8.986E-04	0.00	1.439E-03	0.00	7.561E-04	0.00	1.906E-05	1.903E-05	1.906E-05	1.903E-05
30 - 35	3.014E-05	0.00	3.581E-05	0.00	2.217E-05	0.00	4.120E-04	0.00	1.852E-05	0.00	5.442E-06	5.434E-06	5.442E-06	5.434E-06
35 - 40	1.272E-05	0.00	1.608E-05	0.00	6.635E-06	0.00	1.855E-05	0.00	4.890E-06	0.00	1.432E-06	1.430E-06	1.432E-06	1.431E-06
40 - 45	9.034E-06	0.00	1.264E-05	0.00	4.550E-06	0.00	1.595E-05	0.00	2.352E-06	0.00	0.	0.	0.	0.
45 - 50	6.854E-06	0.00	1.036E-05	0.00	4.057E-06	0.00	1.225E-05	0.00	2.045E-06	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.187570 MICROMETERS

FREQUENCY = 2388.020 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.636E+00	0.00	3.211E+00	0.00	1.673E+00	0.00	2.746E+00	0.00	1.332E+00	0.00	1.294E-02	1.303E-02	6.307E-02	6.349E-02
0 - 1	3.076E+00	0.00	2.779E+00	0.00	1.683E+00	0.00	2.346E+00	0.00	1.214E+00	0.00	8.835E-03	8.893E-03	3.977E-02	4.003E-02
1 - 2	2.212E+00	0.00	2.040E+00	0.00	1.236E+00	0.00	1.666E+00	0.00	9.449E-01	0.00	3.855E-03	3.881E-03	1.279E-02	1.286E-02
2 - 3	1.611E+00	0.00	1.470E+00	0.00	8.988E-01	0.00	1.172E+00	0.00	6.789E-01	0.00	1.645E-03	1.656E-03	4.444E-03	4.473E-03
3 - 4	1.154E+00	0.00	1.023E+00	0.00	6.249E-01	0.00	8.306E-01	0.00	4.764E-01	0.00	7.639E-04	7.690E-04	1.941E-03	1.954E-03
4 - 5	7.704E-01	0.00	6.837E-01	0.00	4.150E-01	0.00	5.573E-01	0.00	3.081E-01	0.00	4.757E-04	4.788E-04	7.090E-04	7.137E-04
5 - 6	5.190E-01	0.00	4.720E-01	0.00	2.687E-01	0.00	3.745E-01	0.00	1.927E-01	0.00	3.474E-04	3.497E-04	3.474E-04	3.497E-04
6 - 7	3.406E-01	0.00	3.193E-01	0.00	1.729E-01	0.00	2.318E-01	0.00	1.178E-01	0.00	2.799E-04	2.818E-04	2.799E-04	2.818E-04
7 - 8	2.182E-01	0.00	2.028E-01	0.00	1.086E-01	0.00	1.461E-01	0.00	7.163E-02	0.00	2.739E-04	2.757E-04	2.739E-04	2.757E-04
8 - 9	1.390E-01	0.00	1.253E-01	0.00	6.814E-02	0.00	8.977E-02	0.00	4.475E-02	0.00	2.722E-04	2.740E-04	2.722E-04	2.740E-04
9 - 10	8.708E-02	0.00	7.979E-02	0.00	4.061E-02	0.00	5.376E-02	0.00	3.102E-02	0.00	2.632E-04	2.649E-04	2.632E-04	2.649E-04
10 - 11	5.374E-02	0.00	4.965E-02	0.00	2.768E-02	0.00	3.549E-02	0.00	2.272E-02	0.00	2.517E-04	2.533E-04	2.517E-04	2.533E-04
11 - 12	3.227E-02	0.00	3.026E-02	0.00	1.979E-02	0.00	2.693E-02	0.00	1.663E-02	0.00	2.496E-04	2.513E-04	2.496E-04	2.513E-04
12 - 13	1.998E-02	0.00	1.795E-02	0.00	1.437E-02	0.00	1.928E-02	0.00	1.197E-02	0.00	2.459E-04	2.475E-04	2.459E-04	2.475E-04
13 - 14	1.210E-02	0.00	1.139E-02	0.00	1.052E-02	0.00	1.478E-02	0.00	9.069E-03	0.00	2.337E-04	2.352E-04	2.337E-04	2.352E-04
14 - 15	6.889E-03	0.00	8.964E-03	0.00	7.485E-03	0.00	1.086E-02	0.00	6.508E-03	0.00	2.242E-04	2.257E-04	2.242E-04	2.257E-04
15 - 16	4.018E-03	0.00	6.357E-03	0.00	5.349E-03	0.00	7.656E-03	0.00	4.703E-03	0.00	2.119E-04	2.133E-04	2.119E-04	2.133E-04
16 - 17	2.385E-03	0.00	4.579E-03	0.00	3.848E-03	0.00	5.932E-03	0.00	3.372E-03	0.00	2.054E-04	2.068E-04	2.054E-04	2.068E-04
17 - 18	1.782E-03	0.00	3.391E-03	0.00	2.811E-03	0.00	4.342E-03	0.00	2.409E-03	0.00	2.009E-04	2.022E-04	2.009E-04	2.022E-04
18 - 19	1.337E-03	0.00	2.500E-03	0.00	1.990E-03	0.00	3.203E-03	0.00	1.738E-03	0.00	1.816E-04	1.828E-04	1.816E-04	1.828E-04
19 - 20	1.125E-03	0.00	1.896E-03	0.00	1.419E-03	0.00	2.398E-03	0.00	1.227E-03	0.00	1.432E-04	1.441E-04	1.432E-04	1.441E-04
20 - 21	9.530E-04	0.00	1.423E-03	0.00	1.057E-03	0.00	1.730E-03	0.00	8.854E-04	0.00	1.045E-04	1.051E-04	1.045E-04	1.051E-04
21 - 22	7.869E-04	0.00	1.096E-03	0.00	7.697E-04	0.00	1.304E-03	0.00	6.275E-04	0.00	7.708E-05	7.759E-05	7.708E-05	7.759E-05
22 - 23	6.241E-04	0.00	8.315E-04	0.00	5.594E-04	0.00	9.641E-04	0.00	4.415E-04	0.00	5.846E-05	5.885E-05	5.846E-05	5.885E-05
23 - 24	4.978E-04	0.00	6.694E-04	0.00	4.059E-04	0.00	7.096E-04	0.00	3.253E-04	0.00	4.550E-05	4.580E-05	4.550E-05	4.580E-05
24 - 25	3.854E-04	0.00	4.904E-04	0.00	3.065E-04	0.00	5.549E-04	0.00	2.239E-04	0.00	3.714E-05	3.738E-05	3.714E-05	3.738E-05
25 - 30	2.093E-04	0.00	2.654E-04	0.00	1.714E-04	0.00	2.916E-04	0.00	1.032E-04	0.00	1.982E-05	1.995E-05	1.982E-05	1.995E-05
30 - 35	1.116E-03	0.00	2.070E-03	0.00	1.512E-03	0.00	9.263E-05	0.00	1.702E-03	0.00	5.658E-06	5.696E-06	5.658E-06	5.696E-06
35 - 40	3.778E-04	0.00	4.300E-04	0.00	3.376E-04	0.00	4.274E-04	0.00	3.179E-04	0.00	1.489E-06	1.499E-06	1.489E-06	1.499E-06
40 - 45	8.554E-05	0.00	9.690E-05	0.00	6.535E-05	0.00	9.653E-05	0.00	5.858E-05	0.00	0.	0.	0.	0.
45 - 50	2.112E-05	0.00	2.444E-05	0.00	1.480E-05	0.00	2.535E-05	0.00	1.229E-05	0.00	0.	0.	0.	0.
50 - 70	2.685E-06	0.00	3.238E-06	0.00	0.	0.00	3.506E-06	0.00	1.102E-06	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.185220 MICROMETERS

FREQUENCY = 2388.790 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	7.677E-01	0.00	6.867E-01	0.00	4.056E-01	0.00	5.979E-01	0.00	3.368E-01	0.00	1.295E-02	1.303E-02	6.309E-02	6.351E-02
0 - 1	6.432E-01	0.00	5.863E-01	0.00	3.793E-01	0.00	5.032E-01	0.00	2.898E-01	0.00	8.837E-03	8.896E-03	3.978E-02	4.005E-02
1 - 2	4.559E-01	0.00	4.235E-01	0.00	2.744E-01	0.00	3.535E-01	0.00	2.199E-01	0.00	3.856E-03	3.882E-03	1.280E-02	1.288E-02
2 - 3	3.286E-01	0.00	3.029E-01	0.00	1.980E-01	0.00	2.474E-01	0.00	1.574E-01	0.00	1.645E-03	1.656E-03	4.445E-03	4.475E-03
3 - 4	2.343E-01	0.00	2.102E-01	0.00	1.384E-01	0.00	1.753E-01	0.00	1.111E-01	0.00	7.642E-04	7.693E-04	1.942E-03	1.955E-03
4 - 5	1.577E-01	0.00	1.420E-01	0.00	9.388E-02	0.00	1.191E-01	0.00	7.438E-02	0.00	4.758E-04	4.790E-04	7.092E-04	7.140E-04
5 - 6	1.076E-01	0.00	9.710E-02	0.00	6.285E-02	0.00	8.165E-02	0.00	4.899E-02	0.00	3.475E-04	3.499E-04	3.475E-04	3.499E-04
6 - 7	7.213E-02	0.00	6.844E-02	0.00	4.218E-02	0.00	5.258E-02	0.00	3.205E-02	0.00	2.800E-04	2.819E-04	2.800E-04	2.819E-04
7 - 8	4.879E-02	0.00	4.499E-02	0.00	2.802E-02	0.00	3.482E-02	0.00	2.100E-02	0.00	2.739E-04	2.758E-04	2.739E-04	2.758E-04
8 - 9	3.094E-02	0.00	2.924E-02	0.00	1.873E-02	0.00	2.281E-02	0.00	1.419E-02	0.00	2.723E-04	2.741E-04	2.723E-04	2.741E-04
9 - 10	2.097E-02	0.00	1.962E-02	0.00	1.222E-02	0.00	1.481E-02	0.00	1.005E-02	0.00	2.633E-04	2.650E-04	2.633E-04	2.650E-04
10 - 11	1.391E-02	0.00	1.300E-02	0.00	8.618E-03	0.00	1.026E-02	0.00	7.341E-03	0.00	2.517E-04	2.534E-04	2.517E-04	2.534E-04
11 - 12	9.022E-03	0.00	8.608E-03	0.00	6.231E-03	0.00	7.679E-03	0.00	5.370E-03	0.00	2.497E-04	2.514E-04	2.497E-04	2.514E-04
12 - 13	6.123E-03	0.00	5.608E-03	0.00	4.540E-03	0.00	5.559E-03	0.00	3.880E-03	0.00	2.459E-04	2.476E-04	2.459E-04	2.476E-04
13 - 14	3.805E-03	0.00	3.938E-03	0.00	3.314E-03	0.00	4.205E-03	0.00	2.889E-03	0.00	2.338E-04	2.353E-04	2.338E-04	2.353E-04
14 - 15	2.646E-03	0.00	2.952E-03	0.00	2.396E-03	0.00	3.116E-03	0.00	2.094E-03	0.00	2.243E-04	2.258E-04	2.243E-04	2.258E-04
15 - 16	1.745E-03	0.00	2.083E-03	0.00	1.729E-03	0.00	2.184E-03	0.00	1.516E-03	0.00	2.120E-04	2.134E-04	2.120E-04	2.134E-04
16 - 17	1.127E-03	0.00	1.499E-03	0.00	1.251E-03	0.00	1.687E-03	0.00	1.099E-03	0.00	2.055E-04	2.068E-04	2.055E-04	2.068E-04
17 - 18	8.251E-04	0.00	1.108E-03	0.00	9.172E-04	0.00	1.237E-03	0.00	7.931E-04	0.00	2.009E-04	2.023E-04	2.009E-04	2.023E-04
18 - 19	6.164E-04	0.00	8.107E-04	0.00	6.564E-04	0.00	9.140E-04	0.00	5.755E-04	0.00	1.816E-04	1.828E-04	1.816E-04	1.828E-04
19 - 20	4.585E-04	0.00	6.051E-04	0.00	4.724E-04	0.00	6.824E-04	0.00	4.126E-04	0.00	1.432E-04	1.442E-04	1.432E-04	1.442E-04
20 - 21	3.520E-04	0.00	4.483E-04	0.00	3.510E-04	0.00	4.938E-04	0.00	2.992E-04	0.00	1.045E-04	1.052E-04	1.045E-04	1.052E-04
21 - 22	2.703E-04	0.00	3.385E-04	0.00	2.548E-04	0.00	3.703E-04	0.00	2.149E-04	0.00	7.710E-05	7.761E-05	7.710E-05	7.761E-05
22 - 23	2.037E-04	0.00	2.507E-04	0.00	1.852E-04	0.00	2.737E-04	0.00	1.538E-04	0.00	5.848E-05	5.887E-05	5.848E-05	5.887E-05
23 - 24	1.540E-04	0.00	1.971E-04	0.00	1.338E-04	0.00	2.017E-04	0.00	1.125E-04	0.00	4.551E-05	4.582E-05	4.551E-05	4.582E-05
24 - 25	1.168E-04	0.00	1.412E-04	0.00	1.003E-04	0.00	1.521E-04	0.00	7.858E-05	0.00	3.715E-05	3.739E-05	3.715E-05	3.739E-05
25 - 30	5.669E-05	0.00	6.957E-05	0.00	4.150E-05	0.00	7.399E-05	0.00	3.408E-05	0.00	1.982E-05	1.996E-05	1.982E-05	1.996E-05
30 - 35	1.770E-05	0.00	2.112E-05	0.00	1.265E-05	0.00	2.127E-05	0.00	1.024E-05	0.00	5.660E-06	5.698E-06	5.660E-06	5.698E-06
35 - 40	4.721E-06	0.00	5.721E-06	0.00	3.122E-06	0.00	6.037E-06	0.00	2.439E-06	0.00	1.490E-06	1.499E-06	1.490E-06	1.499E-06
40 - 45	1.340E-06	0.00	1.651E-06	0.00	0.	0.00	1.773E-06	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.183978 MICROMETERS

FREQUENCY = 2390.070 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.701E-01	0.00	4.205E-01	0.00	2.871E-01	0.00	3.675E-01	0.00	2.239E-01	0.00	1.295E-02	1.304E-02	6.312E-02	6.355E-02
0 - 1	3.951E-01	0.00	3.599E-01	0.00	2.384E-01	0.00	3.099E-01	0.00	1.886E-01	0.00	8.842E-03	8.902E-03	3.980E-02	4.007E-02
1 - 2	2.807E-01	0.00	2.611E-01	0.00	1.742E-01	0.00	2.194E-01	0.00	1.438E-01	0.00	3.858E-03	3.884E-03	1.[illegible]0E-02	1.289E-02
2 - 3	2.031E-01	0.00	1.879E-01	0.00	1.271E-01	0.00	1.551E-01	0.00	1.044E-01	0.00	1.646E-03	1.657E-03	4.447E-03	4.478E-03
3 - 4	1.456E-01	0.00	1.313E-01	0.00	9.028E-02	0.00	1.111E-01	0.00	7.493E-02	0.00	7.645E-04	7.697E-04	1.943E-03	1.956E-03
4 - 5	9.910E-02	0.00	8.999E-02	0.00	6.266E-02	0.00	7.673E-02	0.00	5.171E-02	0.00	4.760E-04	4.793E-04	7.096E-04	7.144E-04
5 - 6	6.859E-02	0.00	6.366E-02	0.00	4.317E-02	0.00	5.369E-02	0.00	3.536E-02	0.00	3.477E-04	3.501E-04	3.477E-04	3.501E-04
6 - 7	4.687E-02	0.00	4.480E-02	0.00	2.988E-02	0.00	3.565E-02	0.00	2.412E-02	0.00	2.801E-04	2.820E-04	2.801E-04	2.820E-04
7 - 8	3.296E-02	0.00	3.022E-02	0.00	2.058E-02	0.00	2.443E-02	0.00	1.652E-02	0.00	2.741E-04	2.759E-04	2.741E-04	2.759E-04
8 - 9	2.089E-02	0.00	2.033E-02	0.00	1.427E-02	0.00	1.666E-02	0.00	1.154E-02	0.00	2.724E-04	2.743E-04	2.724E-04	2.743E-04
9 - 10	1.490E-02	0.00	1.410E-02	0.00	9.724E-03	0.00	1.132E-02	0.00	8.269E-03	0.00	2.634E-04	2.652E-04	2.634E-04	2.652E-04
10 - 11	1.030E-02	0.00	9.687E-03	0.00	6.981E-03	0.00	8.043E-03	0.00	6.038E-03	0.00	2.518E-04	2.536E-04	2.518E-04	2.536E-04
11 - 12	6.959E-03	0.00	6.696E-03	0.00	5.074E-03	0.00	5.990E-03	0.00	4.420E-03	0.00	2.498E-04	2.515E-04	2.498E-04	2.515E-04
12 - 13	4.927E-03	0.00	4.553E-03	0.00	3.706E-03	0.00	4.369E-03	0.00	3.200E-03	0.00	2.461E-04	2.477E-04	2.461E-04	2.477E-04
13 - 14	3.202E-03	0.00	3.275E-03	0.00	2.706E-03	0.00	3.284E-03	0.00	2.370E-03	0.00	2.339E-04	2.355E-04	2.339E-04	2.355E-04
14 - 15	2.317E-03	0.00	2.451E-03	0.00	1.968E-03	0.00	2.443E-03	0.00	1.724E-03	0.00	2.244E-04	2.259E-04	2.244E-04	2.259E-04
15 - 16	1.583E-03	0.00	1.727E-03	0.00	1.426E-03	0.00	1.708E-03	0.00	1.250E-03	0.00	2.121E-04	2.135E-04	2.121E-04	2.135E-04
16 - 17	1.046E-03	0.00	1.2[illegible]3E-03	0.00	1.035E-03	0.00	1.319E-03	0.00	9.094E-04	0.00	2.056E-04	2.070E-04	2.056E-04	2.070E-04
17 - 18	7.625E-04	0.00	9.[illegible]04E-04	0.00	7.601E-04	0.00	9.679E-04	0.00	6.593E-04	0.00	2.010E-04	2.024E-04	2.010E-04	2.024E-04
18 - 19	5.585E-04	0.00	6.711E-04	0.00	5.462E-04	0.00	7.157E-04	0.00	4.796E-04	0.00	1.817E-04	1.830E-04	1.817E-04	1.830E-04
19 - 20	4.066E-04	0.00	4.971E-04	0.00	3.943E-04	0.00	5.338E-04	0.00	3.458E-04	0.00	1.433E-04	1.442E-04	1.433E-04	1.442E-04
20 - 21	3.051E-04	0.00	3.663E-04	0.00	2.928E-04	0.00	3.868E-04	0.00	2.513E-04	0.00	1.045E-04	1.052E-04	1.045E-04	1.052E-04
21 - 22	2.285E-04	0.00	2.744E-04	0.00	2.124E-04	0.00	2.895E-04	0.00	1.814E-04	0.00	7.713E-05	7.766E-05	7.713E-05	7.766E-05
22 - 23	1.689E-04	0.00	2.013E-04	0.00	1.543E-04	0.00	2.140E-04	0.00	1.305E-04	0.00	5.851E-05	5.891E-05	5.851E-05	5.891E-05
23 - 24	1.261E-04	0.00	1.567E-04	0.00	1.114E-04	0.00	1.577E-04	0.00	9.537E-05	0.00	4.554E-05	4.584E-05	4.554E-05	4.584E-05
24 - 25	9.572E-05	0.00	1.132E-04	0.00	8.479E-05	0.00	1.192E-04	0.00	6.809E-05	0.00	3.716E-05	3.742E-05	3.716E-05	3.742E-05
25 - 30	4.521E-05	0.00	5.458E-05	0.00	3.540E-05	0.00	5.707E-05	0.00	2.957E-05	0.00	1.983E-05	1.997E-05	1.983E-05	1.997E-05
30 - 35	1.937E-03	0.00	2.198E-03	0.00	2.145E-03	0.00	1.549E-05	0.00	1.941E-03	0.00	5.663E-06	5.701E-06	5.663E-06	5.701E-06
35 - 40	3.934E-04	0.00	4.454E-04	0.00	3.623E-04	0.00	4.404E-04	0.00	3.477E-04	0.00	1.490E-06	1.500E-06	1.490E-06	1.500E-06
40 - 45	8.750E-05	0.00	9.852E-05	0.00	6.778E-05	0.00	9.768E-05	0.00	6.290E-05	0.00	0.	0.	0.	0.
45 - 50	2.138E-05	0.00	2.460E-05	0.00	1.508E-05	0.00	2.545E-05	0.00	1.269E-05	0.00	0.	0.	0.	0.
50 - 70	2.819E-06	0.00	3.382E-06	0.00	0.	0.00	3.665E-06	0.00	1.140E-06	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.173798 MICROMETERS

FREQUENCY = 2392.460 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.407E-01	0.00	1.335E-01	0.00	1.192E-01	0.00	1.261E-01	0.00	1.147E-01	0.00	1.297E-02	1.306E-02	6.318E-02	6.362E-02
0 - 1	1.215E-01	0.00	1.155E-01	0.00	9.710E-02	0.00	1.071E-01	0.00	8.921E-02	0.00	8.850E-03	8.[illegible]E-03	3.984E-02	4.011E-02
1 - 2	9.080E-02	0.00	8.733E-02	0.00	7.377E-02	0.00	8.043E-02	0.00	6.851E-02	0.00	3.862E-03	3.8[illegible]E-03	1.281E-02	1.290E-02
2 - 3	6.888E-02	0.00	6.659E-02	0.00	5.600E-02	0.00	6.038E-02	0.00	5.172E-02	0.00	1.648E-03	1.659E-03	4.451E-03	4.482E-03
3 - 4	5.215E-02	0.00	4.925E-02	0.00	4.212E-02	0.00	4.577E-02	0.00	3.882E-02	0.00	7.652E-04	7.705E-04	1.944E-03	1.958E-03
4 - 5	3.846E-02	0.00	3.666E-02	0.00	3.144E-02	0.00	3.402E-02	0.00	2.889E-02	0.00	4.765E-04	4.798E-04	7.102E-04	7.152E-04
5 - 6	2.874E-02	0.00	2.766E-02	0.00	2.337E-02	0.00	2.559E-02	0.00	2.135E-02	0.00	3.480E-04	3.504E-04	3.480E-04	3.504E-04
6 - 7	2.129E-02	0.00	2.054E-02	0.00	1.734E-02	0.00	1.862E-02	0.00	1.558E-02	0.00	2.804E-04	2.823E-04	2.804E-04	2.823E-04
7 - 8	1.701E-02	0.00	1.535E-02	0.00	1.284E-02	0.00	1.387E-02	0.00	1.149E-02	0.00	2.743E-04	2.762E-04	2.743E-04	2.762E-04
8 - 9	1.073E-02	0.00	1.129E-02	0.00	9.431E-03	0.00	1.025E-02	0.00	8.391E-03	0.00	2.727E-04	2.746E-04	2.727E-04	2.746E-04
9 - 10	8.670E-03	0.00	8.409E-03	0.00	6.879E-03	0.00	7.528E-03	0.00	6.095E-03	0.00	2.636E-04	2.655E-04	2.636E-04	2.655E-04
10 - 11	6.498E-03	0.00	6.170E-03	0.00	5.039E-03	0.00	5.554E-03	0.00	4.449E-03	0.00	2.521E-04	2.538E-04	2.521E-04	2.538E-04
11 - 12	4.691E-03	0.00	4.568E-03	0.00	3.693E-03	0.00	4.095E-03	0.00	3.260E-03	0.00	2.500E-04	2.518E-04	2.500E-04	2.518E-04
12 - 13	3.529E-03	0.00	3.296E-03	0.00	2.704E-03	0.00	3.014E-03	0.00	2.369E-03	0.00	2.463E-04	2.480E-04	2.463E-04	2.480E-04
13 - 14	2.430E-03	0.00	2.451E-03	0.00	1.969E-03	0.00	2.248E-03	0.00	1.735E-03	0.00	2.341E-04	2.357E-04	2.341E-04	2.357E-04
14 - 15	1.841E-03	0.00	1.826E-03	0.00	1.447E-03	0.00	1.685E-03	0.00	1.272E-03	0.00	2.246E-04	2.261E-04	2.246E-04	2.261E-04
15 - 16	1.309E-03	0.00	1.285E-03	0.00	1.054E-03	0.00	1.173E-03	0.00	9.230E-04	0.00	2.123E-04	2.137E-04	2.123E-04	2.137E-04
16 - 17	8.856E-04	0.00	9.249E-04	0.00	7.673E-04	0.00	9.044E-04	0.00	6.750E-04	0.00	2.058E-04	2.072E-04	2.058E-04	2.072E-04
17 - 18	6.425E-04	0.00	6.824E-04	0.00	5.643E-04	0.00	6.647E-04	0.00	4.921E-04	0.00	2.012E-04	2.026E-04	2.012E-04	2.026E-04
18 - 19	4.605E-04	0.00	4.963E-04	0.00	4.080E-04	0.00	4.922E-04	0.00	3.587E-04	0.00	1.819E-04	1.832E-04	1.819E-04	1.832E-04
19 - 20	3.273E-04	0.00	3.652E-04	0.00	2.960E-04	0.00	3.654E-04	0.00	2.607E-04	0.00	1.434E-04	1.444E-04	1.434E-04	1.444E-04
20 - 21	2.393E-04	0.00	2.674E-04	0.00	2.195E-04	0.00	2.661E-04	0.00	1.898E-04	0.00	1.046E-04	1.054E-04	1.046E-04	1.054E-04
21 - 22	1.740E-04	0.00	1.981E-04	0.00	1.589E-04	0.00	1.984E-04	0.00	1.379E-04	0.00	7.774E-05	7.720E-05	7.774E-05	7.774E-05
22 - 23	1.257E-04	0.00	1.434E-04	0.00	1.154E-04	0.00	1.466E-04	0.00	1.000E-04	0.00	5.856E-05	5.897E-05	5.856E-05	5.897E-05
23 - 24	9.229E-05	0.00	1.100E-04	0.00	8.315E-05	0.00	1.083E-04	0.00	7.270E-05	0.00	4.558E-05	4.589E-05	4.558E-05	4.589E-05
24 - 25	6.877E-05	0.00	7.901E-05	0.00	6.348E-05	0.00	8.042E-05	0.00	5.263E-05	0.00	3.720E-05	3.746E-05	3.720E-05	3.746E-05
25 - 30	3.053E-05	0.00	3.594E-05	0.00	2.623E-05	0.00	3.654E-05	0.00	2.237E-05	0.00	1.999E-05	1.985E-05	1.999E-05	1.999E-05
30 - 35	9.137E-06	0.00	1.086E-05	0.00	6.840E-06	0.00	8.917E-06	0.00	5.627E-06	0.00	5.668E-06	5.707E-06	5.668E-06	5.707E-06
35 - 40	2.380E-06	0.00	2.873E-06	0.00	1.624E-06	0.00	3.016E-06	0.00	1.282E-06	0.00	1.492E-06	1.502E-06	1.492E-06	1.502E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.158644 MICROMETERS

FREQUENCY = 2404.630 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	8.775E-02	0.00	8.917E-02	0.00	9.653E-02	0.00	9.048E-02	0.00	1.010E-01	0.00	1.303E-02	1.313E-02	6.347E-02	6.397E-02
0 - 1	7.848E-02	0.00	7.824E-02	0.00	7.830E-02	0.00	7.768E-02	0.00	7.682E-02	0.00	8.890E-03	8.960E-03	4.002E-02	4.033E-02
1 - 2	6.208E-02	0.00	6.162E-02	0.00	6.066E-02	0.00	6.096E-02	0.00	5.915E-02	0.00	3.879E-03	3.910E-03	1.287E-02	1.297E-02
2 - 3	4.920E-02	0.00	4.924E-02	0.00	4.690E-02	0.00	4.755E-02	0.00	4.527E-02	0.00	1.655E-03	1.668E-03	4.472E-03	4.507E-03
3 - 4	3.890E-02	0.00	3.796E-02	0.00	3.610E-02	0.00	3.717E-02	0.00	3.448E-02	0.00	7.687E-04	7.748E-04	1.953E-03	1.969E-03
4 - 5	3.022E-02	0.00	2.957E-02	0.00	2.765E-02	0.00	2.856E-02	0.00	2.621E-02	0.00	4.786E-04	4.824E-04	7.135E-04	7.191E-04
5 - 6	2.354E-02	0.00	2.304E-02	0.00	2.102E-02	0.00	2.212E-02	0.00	1.973E-02	0.00	3.496E-04	3.524E-04	3.496E-04	3.524E-04
6 - 7	1.807E-02	0.00	1.797E-02	0.00	1.588E-02	0.00	1.658E-02	0.00	1.472E-02	0.00	2.817E-04	2.839E-04	2.817E-04	2.839E-04
7 - 8	1.505E-02	0.00	1.355E-02	0.00	1.192E-02	0.00	1.263E-02	0.00	1.091E-02	0.00	2.756E-04	2.778E-04	2.756E-04	2.778E-04
8 - 9	9.537E-03	0.00	1.023E-02	0.00	3.882E-03	0.00	9.516E-03	0.00	8.034E-03	0.00	2.739E-04	2.761E-04	2.739E-04	2.761E-04
9 - 10	7.946E-03	0.00	7.752E-03	0.00	6.556E-03	0.00	7.098E-03	0.00	5.848E-03	0.00	2.648E-04	2.669E-04	2.648E-04	2.669E-04
10 - 11	6.063E-03	0.00	5.[illegible]E-03	0.00	4.820E-03	0.00	5.272E-03	0.00	4.269E-03	0.00	2.532E-04	2.552E-04	2.532E-04	2.552E-04
11 - 12	4.434E-03	0.00	[illegible]E-03	0.00	3.537E-03	0.00	3.882E-03	0.00	3.129E-03	0.00	2.512E-04	2.532E-04	2.512E-04	2.532E-04
12 - 13	3.371E-03	0.00	[illegible]E-03	0.00	2.591E-03	0.00	2.862E-03	0.00	2.274E-03	0.00	2.474E-04	2.494E-04	2.474E-04	2.494E-04
13 - 14	2.342E-03	0.00	[illegible]E-03	0.00	1.886E-03	0.00	2.131E-03	0.00	1.664E-03	0.00	2.351E-04	2.370E-04	2.351E-04	2.370E-04
14 - 15	1.786E-03	0.00	[illegible]E-03	0.00	1.388E-03	0.00	1.599E-03	0.00	1.221E-03	0.00	2.256E-04	2.274E-04	2.256E-04	2.274E-04
15 - 16	1.277E-03	0.00	1.235E-03	0.00	1.012E-03	0.00	1.113E-03	0.00	8.860E-04	0.00	2.132E-04	2.149E-04	2.132E-04	2.149E-04
16 - 17	8.663E-04	0.00	8.889E-04	0.00	7.370E-04	0.00	8.576E-04	0.00	6.485E-04	0.00	2.067E-04	2.083E-04	2.067E-04	2.083E-04
17 - 18	6.281E-04	0.00	6.557E-04	0.00	5.422E-04	0.00	6.304E-04	0.00	4.732E-04	0.00	2.021E-04	2.037E-04	2.021E-04	2.037E-04
18 - 19	4.490E-04	0.00	4.766E-04	0.00	3.923E-04	0.00	4.670E-04	0.00	3.450E-04	0.00	1.827E-04	1.842E-04	1.827E-04	1.842E-04
19 - 20	3.182E-04	0.00	3.503E-04	0.00	2.848E-04	0.00	3.475E-04	0.00	2.510E-04	0.00	1.441E-04	1.452E-04	1.441E-04	1.452E-04
20 - 21	2.318E-04	0.00	2.562E-04	0.00	2.112E-04	0.00	2.525E-04	0.00	1.828E-04	0.00	1.051E-04	1.059E-04	1.051E-04	1.059E-04
21 - 22	1.678E-04	0.00	1.895E-04	0.00	1.528E-04	0.00	1.881E-04	0.00	1.329E-04	0.00	7.756E-05	7.817E-05	7.756E-05	7.817E-05
22 - 23	1.208E-04	0.00	1.369E-04	0.00	1.110E-04	0.00	1.390E-04	0.00	9.652E-05	0.00	5.863E-05	5.929E-05	5.863E-05	5.929E-05
23 - 24	8.846E-05	0.00	1.047E-04	0.00	7.996E-05	0.00	1.028E-04	0.00	7.014E-05	0.00	4.615E-05	4.578E-05	4.615E-05	4.578E-05
24 - 25	6.579E-05	0.00	7.523E-05	0.00	6.112E-05	0.00	7.612E-05	0.00	5.090E-05	0.00	3.737E-05	3.766E-05	3.737E-05	3.766E-05
25 - 30	2.894E-05	0.00	3.392E-05	0.00	2.524E-05	0.00	3.431E-05	0.00	2.160E-05	0.00	1.994E-05	2.010E-05	1.994E-05	2.010E-05
30 - 35	1.117E-05	0.00	1.323E-05	0.00	8.606E-06	0.00	8.182E-06	0.00	7.119E-06	0.00	5.694E-06	5.738E-06	5.694E-06	5.738E-06
35 - 40	2.857E-06	0.00	3.433E-06	0.00	1.993E-06	0.00	3.589E-06	0.00	1.600E-06	0.00	1.498E-06	1.510E-06	1.498E-06	1.510E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	1.014E-06	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.140975 MICROMETERS

FREQUENCY = 2414.890 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	8.285E-02	0.00	8.450E-02	0.00	9.205E-02	0.00	8.601E-02	0.00	9.644E-02	0.00	1.308E-02	1.319E-02	6.371E-02	6.426E-02
0 - 1	7.423E-02	0.00	7.422E-02	0.00	7.468E-02	0.00	7.389E-02	0.00	7.333E-02	0.00	8.924E-03	9.001E-03	4.017E-02	4.052E-02
1 - 2	5.888E-02	0.00	5.857E-02	0.00	5.788E-02	0.00	5.806E-02	0.00	5.647E-02	0.00	3.894E-03	3.928E-03	1.292E-02	1.303E-02
2 - 3	4.678E-02	0.00	4.689E-02	0.00	4.476E-02	0.00	4.532E-02	0.00	4.322E-02	0.00	1.662E-03	1.676E-03	4.489E-03	4.528E-03
3 - 4	3.706E-02	0.00	3.619E-02	0.00	3.446E-02	0.00	3.546E-02	0.00	3.292E-02	0.00	7.717E-04	7.783E-04	1.961E-03	1.978E-03
4 - 5	2.883E-02	0.00	2.821E-02	0.00	2.640E-02	0.00	2.726E-02	0.00	2.503E-02	0.00	4.805E-04	4.846E-04	7.162E-04	7.224E-04
5 - 6	2.246E-02	0.00	2.199E-02	0.00	2.008E-02	0.00	2.112E-02	0.00	1.885E-02	0.00	3.509E-04	3.540E-04	3.509E-04	3.540E-04
6 - 7	1.725E-02	0.00	1.716E-02	0.00	1.517E-02	0.00	1.583E-02	0.00	1.406E-02	0.00	2.827E-04	2.852E-04	2.827E-04	2.852E-04
7 - 8	1.437E-02	0.00	1.294E-02	0.00	1.139E-02	0.00	1.206E-02	0.00	1.042E-02	0.00	2.766E-04	2.790E-04	2.766E-04	2.790E-04
8 - 9	9.108E-03	0.00	9.769E-03	0.00	8.483E-03	0.00	9.089E-03	0.00	7.673E-03	0.00	2.750E-04	2.773E-04	2.750E-04	2.773E-04
9 - 10	7.590E-03	0.00	7.403E-03	0.00	6.261E-03	0.00	6.779E-03	0.00	5.585E-03	0.00	2.659E-04	2.682E-04	2.659E-04	2.682E-04
10 - 11	5.791E-03	0.00	5.511E-03	0.00	4.603E-03	0.00	5.035E-03	0.00	4.077E-03	0.00	2.542E-04	2.564E-04	2.542E-04	2.564E-04
11 - 12	4.235E-03	0.00	4.133E-03	0.00	3.378E-03	0.00	3.707E-03	0.00	2.988E-03	0.00	2.522E-04	2.543E-04	2.522E-04	2.543E-04
12 - 13	3.220E-03	0.00	3.012E-03	0.00	2.475E-03	0.00	2.733E-03	0.00	2.172E-03	0.00	2.484E-04	2.505E-04	2.484E-04	2.505E-04
13 - 14	2.237E-03	0.00	2.251E-03	0.00	1.802E-03	0.00	2.035E-03	0.00	1.589E-03	0.00	2.361E-04	2.381E-04	2.361E-04	2.381E-04
14 - 15	1.706E-03	0.00	1.676E-03	0.00	1.326E-03	0.00	1.527E-03	0.00	1.156E-03	0.00	2.265E-04	2.284E-04	2.265E-04	2.284E-04
15 - 16	1.220E-03	0.00	1.179E-03	0.00	9.666E-04	0.00	1.063E-03	0.00	8.462E-04	0.00	2.141E-04	2.159E-04	2.141E-04	2.159E-04
16 - 17	8.273E-04	0.00	8.489E-04	0.00	7.039E-04	0.00	8.191E-04	0.00	6.193E-04	0.00	2.075E-04	2.093E-04	2.075E-04	2.093E-04
17 - 18	5.998E-04	0.00	6.263E-04	0.00	5.178E-04	0.00	6.022E-04	0.00	4.519E-04	0.00	2.029E-04	2.047E-04	2.029E-04	2.047E-04
18 - 19	4.288E-04	0.00	4.552E-04	0.00	3.747E-04	0.00	4.460E-04	0.00	3.295E-04	0.00	1.834E-04	1.850E-04	1.834E-04	1.850E-04
19 - 20	3.038E-04	0.00	3.346E-04	0.00	2.720E-04	0.00	3.319E-04	0.00	2.397E-04	0.00	1.446E-04	1.459E-04	1.446E-04	1.459E-04
20 - 21	2.213E-04	0.00	2.447E-04	0.00	2.017E-04	0.00	2.412E-04	0.00	1.746E-04	0.00	1.055E-04	1.064E-04	1.055E-04	1.064E-04
21 - 22	1.603E-04	0.00	1.810E-04	0.00	1.460E-04	0.00	1.797E-04	0.00	1.270E-04	0.00	7.786E-05	7.853E-05	7.786E-05	7.853E-05
22 - 23	1.153E-04	0.00	1.307E-04	0.00	1.060E-04	0.00	1.328E-04	0.00	9.218E-05	0.00	5.906E-05	5.957E-05	5.906E-05	5.957E-05
23 - 24	8.449E-05	0.00	1.000E-04	0.00	7.637E-05	0.00	9.814E-05	0.00	6.698E-05	0.00	4.596E-05	4.636E-05	4.596E-05	4.636E-05
24 - 25	6.284E-05	0.00	7.185E-05	0.00	5.837E-05	0.00	7.270E-05	0.00	4.861E-05	0.00	3.751E-05	3.784E-05	3.751E-05	3.784E-05
25 - 30	2.765E-05	0.00	3.240E-05	0.00	2.410E-05	0.00	3.277E-05	0.00	2.063E-05	0.00	2.002E-05	2.019E-05	2.002E-05	2.019E-05
30 - 35	6.386E-06	0.00	7.517E-06	0.00	5.112E-06	0.00	7.815E-06	0.00	4.278E-06	0.00	5.715E-06	5.765E-06	5.715E-06	5.765E-06
35 - 40	1.581E-06	0.00	1.883E-06	0.00	1.146E-06	0.00	1.949E-06	0.00	0.	0.00	1.504E-06	1.517E-06	1.504E-06	1.517E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.136898 MICROMETERS

FREQUENCY = 2417.270 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	8.110E-02	0.00	8.270E-02	0.00	9.005E-02	0.00	8.415E-02	0.00	9.433E-02	0.00	1.309E-02	1.320E-02	6.377E-02	6.433E-02
0 - 1	7.265E-02	0.00	7.262E-02	0.00	7.305E-02	0.00	7.229E-02	0.00	7.173E-02	0.00	8.932E-03	9.011E-03	4.021E-02	4.056E-02
1 - 2	5.761E-02	0.00	5.730E-02	0.00	5.661E-02	0.00	5.679E-02	0.00	5.523E-02	0.00	3.898E-03	3.932E-03	1.293E-02	1.305E-02
2 - 3	4.576E-02	0.00	4.586E-02	0.00	4.378E-02	0.00	4.433E-02	0.00	4.227E-02	0.00	1.663E-03	1.678E-03	4.493E-03	4.533E-03
3 - 4	3.625E-02	0.00	3.539E-02	0.00	3.371E-02	0.00	3.468E-02	0.00	3.220E-02	0.00	7.724E-04	7.792E-04	1.963E-03	1.980E-03
4 - 5	2.819E-02	0.00	2.759E-02	0.00	2.582E-02	0.00	2.666E-02	0.00	2.447E-02	0.00	4.809E-04	4.851E-04	7.168E-04	7.232E-04
5 - 6	2.196E-02	0.00	2.151E-02	0.00	1.964E-02	0.00	2.065E-02	0.00	1.843E-02	0.00	3.513E-04	3.544E-04	3.513E-04	3.544E-04
6 - 7	1.687E-02	0.00	1.678E-02	0.00	1.483E-02	0.00	1.548E-02	0.00	1.375E-02	0.00	2.830E-04	2.855E-04	2.830E-04	2.855E-04
7 - 8	1.406E-02	0.00	1.265E-02	0.00	1.114E-02	0.00	1.180E-02	0.00	1.019E-02	0.00	2.769E-04	2.793E-04	2.769E-04	2.793E-04
8 - 9	8.907E-03	0.00	9.553E-03	0.00	8.297E-03	0.00	8.888E-03	0.00	7.505E-03	0.00	2.752E-04	2.776E-04	2.752E-04	2.776E-04
9 - 10	7.422E-03	0.00	7.240E-03	0.00	6.124E-03	0.00	6.630E-03	0.00	5.463E-03	0.00	2.661E-04	2.685E-04	2.661E-04	2.685E-04
10 - 11	5.663E-03	0.00	5.390E-03	0.00	4.502E-03	0.00	4.925E-03	0.00	3.988E-03	0.00	2.544E-04	2.567E-04	2.544E-04	2.567E-04
11 - 12	4.142E-03	0.00	4.042E-03	0.00	3.304E-03	0.00	3.626E-03	0.00	2.923E-03	0.00	2.524E-04	2.546E-04	2.524E-04	2.546E-04
12 - 13	3.149E-03	0.00	2.946E-03	0.00	2.420E-03	0.00	2.673E-03	0.00	2.124E-03	0.00	2.486E-04	2.508E-04	2.486E-04	2.508E-04
13 - 14	2.188E-03	0.00	2.201E-03	0.00	1.762E-03	0.00	1.991E-03	0.00	1.554E-03	0.00	2.363E-04	2.383E-04	2.363E-04	2.383E-04
14 - 15	1.668E-03	0.00	1.640E-03	0.00	1.296E-03	0.00	1.494E-03	0.00	1.140E-03	0.00	2.267E-04	2.287E-04	2.267E-04	2.287E-04
15 - 16	1.193E-03	0.00	1.153E-03	0.00	9.454E-04	0.00	1.040E-03	0.00	8.276E-04	0.00	2.143E-04	2.161E-04	2.143E-04	2.161E-04
16 - 17	8.092E-04	0.00	8.303E-04	0.00	6.885E-04	0.00	8.011E-04	0.00	6.057E-04	0.00	2.077E-04	2.095E-04	2.077E-04	2.095E-04
17 - 18	5.867E-04	0.00	6.125E-04	0.00	5.065E-04	0.00	5.889E-04	0.00	4.420E-04	0.00	2.031E-04	2.049E-04	2.031E-04	2.049E-04
18 - 19	4.194E-04	0.00	4.452E-04	0.00	3.664E-04	0.00	4.362E-04	0.00	3.223E-04	0.00	1.836E-04	1.852E-04	1.836E-04	1.852E-04
19 - 20	2.972E-04	0.00	3.272E-04	0.00	2.661E-04	0.00	3.246E-04	0.00	2.345E-04	0.00	1.447E-04	1.460E-04	1.447E-04	1.460E-04
20 - 21	2.165E-04	0.00	2.394E-04	0.00	1.973E-04	0.00	2.359E-04	0.00	1.708E-04	0.00	1.056E-04	1.065E-04	1.056E-04	1.065E-04
21 - 22	1.568E-04	0.00	1.770E-04	0.00	1.428E-04	0.00	1.757E-04	0.00	1.242E-04	0.00	7.792E-05	7.861E-05	7.792E-05	7.861E-05
22 - 23	1.128E-04	0.00	1.278E-04	0.00	1.037E-04	0.00	1.298E-04	0.00	9.015E-05	0.00	5.911E-05	5.963E-05	5.911E-05	5.963E-05
23 - 24	8.263E-05	0.00	9.782E-05	0.00	7.469E-05	0.00	9.598E-05	0.00	6.551E-05	0.00	4.600E-05	4.641E-05	4.600E-05	4.641E-05
24 - 25	6.146E-05	0.00	7.027E-05	0.00	5.709E-05	0.00	7.110E-05	0.00	4.754E-05	0.00	3.755E-05	3.788E-05	3.755E-05	3.788E-05
25 - 30	2.704E-05	0.00	3.169E-05	0.00	2.357E-05	0.00	3.205E-05	0.00	2.017E-05	0.00	2.004E-05	2.021E-05	2.004E-05	2.021E-05
30 - 35	6.246E-06	0.00	7.354E-06	0.00	5.000E-06	0.00	7.643E-06	0.00	4.184E-06	0.00	5.721E-06	5.771E-06	5.721E-06	5.771E-06
35 - 40	1.546E-06	0.00	1.842E-06	0.00	1.121E-06	0.00	1.906E-06	0.00	0.	0.00	1.505E-06	1.519E-06	1.505E-06	1.519E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.133905 MICROMETERS

FREQUENCY = 2419.020 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	7.966E-02	0.00	8.124E-02	0.00	8.850E-02	0.00	8.268E-02	0.00	9.272E-02	0.00	1.310E-02	1.321E-02	6.381E-02	6.438E-02
0 - 1	7.136E-02	0.00	7.135E-02	0.00	7.179E-02	0.00	7.102E-02	0.00	7.050E-02	0.00	8.938E-03	9.018E-03	4.023E-02	4.059E-02
1 - 2	5.659E-02	0.00	5.630E-02	0.00	5.563E-02	0.00	5.580E-02	0.00	5.428E-02	0.00	3.900E-03	3.935E-03	1.294E-02	1.306E-02
2 - 3	4.496E-02	0.00	4.506E-02	0.00	4.302E-02	0.00	4.356E-02	0.00	4.155E-02	0.00	1.664E-03	1.679E-03	4.496E-03	4.536E-03
3 - 4	3.581E-02	0.00	3.478E-02	0.00	3.313E-02	0.00	3.408E-02	0.00	3.165E-02	0.00	7.729E-04	7.798E-04	1.964E-03	1.982E-03
4 - 5	2.770E-02	0.00	2.711E-02	0.00	2.538E-02	0.00	2.620E-02	0.00	2.406E-02	0.00	4.812E-04	4.855E-04	7.173E-04	7.237E-04
5 - 6	2.158E-02	0.00	2.114E-02	0.00	1.930E-02	0.00	2.030E-02	0.00	1.812E-02	0.00	3.515E-04	3.546E-04	3.515E-04	3.546E-04
6 - 7	1.658E-02	0.00	1.649E-02	0.00	1.458E-02	0.00	1.522E-02	0.00	1.352E-02	0.00	2.832E-04	2.857E-04	2.832E-04	2.857E-04
7 - 8	1.381E-02	0.00	1.244E-02	0.00	1.095E-02	0.00	1.160E-02	0.00	1.002E-02	0.00	2.771E-04	2.795E-04	2.771E-04	2.795E-04
8 - 9	8.755E-03	0.00	9.390E-03	0.00	8.156E-03	0.00	8.738E-03	0.00	7.378E-03	0.00	2.754E-04	2.778E-04	2.754E-04	2.778E-04
9 - 10	7.296E-03	0.00	7.117E-03	0.00	6.020E-03	0.00	6.518E-03	0.00	5.371E-03	0.00	2.663E-04	2.687E-04	2.663E-04	2.687E-04
10 - 11	5.567E-03	0.00	5.298E-03	0.00	4.426E-03	0.00	4.841E-03	0.00	3.920E-03	0.00	2.546E-04	2.569E-04	2.546E-04	2.569E-04
11 - 12	4.071E-03	0.00	3.974E-03	0.00	3.248E-03	0.00	3.565E-03	0.00	2.873E-03	0.00	2.525E-04	2.548E-04	2.525E-04	2.548E-04
12 - 13	3.096E-03	0.00	2.896E-03	0.00	2.379E-03	0.00	2.628E-03	0.00	2.089E-03	0.00	2.487E-04	2.510E-04	2.487E-04	2.510E-04
13 - 14	2.151E-03	0.00	2.164E-03	0.00	1.732E-03	0.00	1.957E-03	0.00	1.528E-03	0.00	2.364E-04	2.385E-04	2.364E-04	2.385E-04
14 - 15	1.640E-03	0.00	1.612E-03	0.00	1.275E-03	0.00	1.468E-03	0.00	1.121E-03	0.00	2.268E-04	2.288E-04	2.268E-04	2.288E-04
15 - 16	1.173E-03	0.00	1.134E-03	0.00	9.294E-04	0.00	1.022E-03	0.00	8.137E-04	0.00	2.144E-04	2.163E-04	2.144E-04	2.163E-04
16 - 17	7.956E-04	0.00	8.163E-04	0.00	6.768E-04	0.00	7.875E-04	0.00	5.955E-04	0.00	2.078E-04	2.097E-04	2.078E-04	2.097E-04
17 - 18	5.768E-04	0.00	6.022E-04	0.00	4.979E-04	0.00	5.789E-04	0.00	4.345E-04	0.00	2.032E-04	2.050E-04	2.032E-04	2.050E-04
18 - 19	4.124E-04	0.00	4.377E-04	0.00	3.603E-04	0.00	4.288E-04	0.00	3.168E-04	0.00	1.837E-04	1.853E-04	1.837E-04	1.853E-04
19 - 20	2.922E-04	0.00	3.217E-04	0.00	2.616E-04	0.00	3.191E-04	0.00	2.305E-04	0.00	1.448E-04	1.461E-04	1.448E-04	1.461E-04
20 - 21	2.128E-04	0.00	2.353E-04	0.00	1.939E-04	0.00	2.319E-04	0.00	1.679E-04	0.00	1.057E-04	1.066E-04	1.057E-04	1.066E-04
21 - 22	1.541E-04	0.00	1.740E-04	0.00	1.404E-04	0.00	1.728E-04	0.00	1.221E-04	0.00	7.798E-05	7.867E-05	7.798E-05	7.867E-05
22 - 23	1.109E-04	0.00	1.257E-04	0.00	1.020E-04	0.00	1.276E-04	0.00	8.864E-05	0.00	5.968E-05	5.915E-05	5.968E-05	5.968E-05
23 - 24	8.124E-05	0.00	9.617E-05	0.00	7.343E-05	0.00	9.436E-05	0.00	6.441E-05	0.00	4.603E-05	4.644E-05	4.603E-05	4.644E-05
24 - 25	6.042E-05	0.00	6.908E-05	0.00	5.612E-05	0.00	6.990E-05	0.00	4.674E-05	0.00	3.757E-05	3.791E-05	3.757E-05	3.791E-05
25 - 30	2.658E-05	0.00	3.115E-05	0.00	2.318E-05	0.00	3.150E-05	0.00	1.983E-05	0.00	2.005E-05	2.023E-05	2.005E-05	2.023E-05
30 - 35	6.142E-06	0.00	7.230E-06	0.00	4.917E-06	0.00	7.512E-06	0.00	4.114E-06	0.00	5.724E-06	5.776E-06	5.724E-06	5.776E-06
35 - 40	1.520E-06	0.00	1.811E-06	0.00	1.102E-06	0.00	1.874E-06	0.00	0.	0.00	1.506E-06	1.520E-06	1.506E-06	1.520E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.099554 MICROMETERS

FREQUENCY = 2439.290 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.861E-02	0.00	6.986E-02	0.00	7.584E-02	0.00	7.100E-02	0.00	7.936E-02	0.00	1.319E-02	1.333E-02	6.429E-02	6.497E-02
0 - 1	6.145E-02	0.00	6.133E-02	0.00	6.161E-02	0.00	6.104E-02	0.00	6.048E-02	0.00	9.005E-03	9.100E-03	4.054E-02	4.096E-02
1 - 2	4.870E-02	0.00	4.841E-02	0.00	4.775E-02	0.00	4.794E-02	0.00	4.658E-02	0.00	3.930E-03	3.971E-03	1.304E-02	1.318E-02
2 - 3	3.866E-02	0.00	3.872E-02	0.00	3.693E-02	0.00	3.741E-02	0.00	3.565E-02	0.00	1.677E-03	1.694E-03	4.530E-03	4.577E-03
3 - 4	3.061E-02	0.00	2.988E-02	0.00	2.843E-02	0.00	2.927E-02	0.00	2.716E-02	0.00	7.787E-04	7.868E-04	1.979E-03	1.999E-03
4 - 5	2.380E-02	0.00	2.328E-02	0.00	2.178E-02	0.00	2.249E-02	0.00	2.064E-02	0.00	4.848E-04	4.899E-04	7.227E-04	7.303E-04
5 - 6	1.854E-02	0.00	1.815E-02	0.00	1.656E-02	0.00	1.742E-02	0.00	1.555E-02	0.00	3.541E-04	3.578E-04	3.541E-04	3.578E-04
6 - 7	1.423E-02	0.00	1.416E-02	0.00	1.252E-02	0.00	1.306E-02	0.00	1.160E-02	0.00	2.853E-04	2.883E-04	2.853E-04	2.883E-04
7 - 8	1.184E-02	0.00	1.167E-02	0.00	9.393E-03	0.00	9.953E-03	0.00	8.604E-03	0.00	2.792E-04	2.821E-04	2.792E-04	2.821E-04
8 - 9	7.527E-03	0.00	8.061E-03	0.00	6.997E-03	0.00	7.499E-03	0.00	6.331E-03	0.00	2.775E-04	2.804E-04	2.775E-04	2.804E-04
9 - 10	6.262E-03	0.00	6.106E-03	0.00	5.169E-03	0.00	5.591E-03	0.00	4.608E-03	0.00	2.683E-04	2.711E-04	2.683E-04	2.711E-04
10 - 11	4.777E-03	0.00	4.548E-03	0.00	3.796E-03	0.00	4.154E-03	0.00	3.365E-03	0.00	2.565E-04	2.592E-04	2.565E-04	2.592E-04
11 - 12	3.494E-03	0.00	3.410E-03	0.00	2.788E-03	0.00	3.061E-03	0.00	2.466E-03	0.00	2.545E-04	2.571E-04	2.545E-04	2.571E-04
12 - 13	2.657E-03	0.00	2.486E-03	0.00	2.042E-03	0.00	2.254E-03	0.00	1.793E-03	0.00	2.506E-04	2.532E-04	2.506E-04	2.532E-04
13 - 14	1.846E-03	0.00	1.857E-03	0.00	1.487E-03	0.00	1.679E-03	0.00	1.311E-03	0.00	2.382E-04	2.407E-04	2.382E-04	2.407E-04
14 - 15	1.408E-03	0.00	1.384E-03	0.00	1.094E-03	0.00	1.260E-03	0.00	9.620E-04	0.00	2.285E-04	2.309E-04	2.285E-04	2.309E-04
15 - 16	1.007E-03	0.00	9.733E-04	0.00	7.976E-04	0.00	8.771E-04	0.00	6.983E-04	0.00	2.160E-04	2.183E-04	2.160E-04	2.183E-04
16 - 17	6.830E-04	0.00	7.006E-04	0.00	5.809E-04	0.00	6.758E-04	0.00	5.111E-04	0.00	2.094E-04	2.116E-04	2.094E-04	2.116E-04
17 - 18	4.952E-04	0.00	5.169E-04	0.00	4.274E-04	0.00	4.968E-04	0.00	3.729E-04	0.00	2.048E-04	2.069E-04	2.048E-04	2.069E-04
18 - 19	3.540E-04	0.00	3.756E-04	0.00	3.092E-04	0.00	3.681E-04	0.00	2.719E-04	0.00	1.851E-04	1.870E-04	1.851E-04	1.870E-04
19 - 20	2.508E-04	0.00	2.762E-04	0.00	2.245E-04	0.00	2.738E-04	0.00	1.978E-04	0.00	1.459E-04	1.475E-04	1.459E-04	1.475E-04
20 - 21	1.827E-04	0.00	2.019E-04	0.00	1.665E-04	0.00	1.990E-04	0.00	1.441E-04	0.00	1.065E-04	1.076E-04	1.065E-04	1.076E-04
21 - 22	1.323E-04	0.00	1.494E-04	0.00	1.205E-04	0.00	1.483E-04	0.00	1.048E-04	0.00	7.856E-05	7.939E-05	7.856E-05	7.939E-05
22 - 23	9.519E-05	0.00	1.079E-04	0.00	8.752E-05	0.00	1.095E-04	0.00	7.608E-05	0.00	5.959E-05	6.022E-05	5.959E-05	6.022E-05
23 - 24	6.973E-05	0.00	8.253E-05	0.00	6.301E-05	0.00	8.099E-05	0.00	5.529E-05	0.00	4.638E-05	4.686E-05	4.638E-05	4.686E-05
24 - 25	5.185E-05	0.00	5.930E-05	0.00	4.818E-05	0.00	5.999E-05	0.00	4.011E-05	0.00	3.785E-05	3.825E-05	3.785E-05	3.825E-05
25 - 30	2.281E-05	0.00	2.673E-05	0.00	1.989E-05	0.00	2.704E-05	0.00	1.702E-05	0.00	2.020E-05	2.041E-05	2.020E-05	2.041E-05
30 - 35	5.190E-06	0.00	6.110E-06	0.00	4.155E-06	0.00	6.448E-06	0.00	3.477E-06	0.00	5.767E-06	5.828E-06	5.767E-06	5.828E-06
35 - 40	1.285E-06	0.00	1.530E-06	0.00	0.	0.00	1.584E-06	0.00	0.	0.00	1.518E-06	1.534E-06	1.518E-06	1.534E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.083434 MICROMETERS

FREQUENCY = 2445.290 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.593E-02	0.00	6.706E-02	0.00	7.246E-02	0.00	6.806E-02	0.00	7.550E-02	0.00	1.322E-02	1.337E-02	6.444E-02	6.514E-02
0 - 1	5.903E-02	0.00	5.893E-02	0.00	5.895E-02	0.00	5.855E-02	0.00	5.778E-02	0.00	9.025E-03	9.124E-03	4.063E-02	4.107E-02
1 - 2	4.675E-02	0.00	4.647E-02	0.00	4.560E-02	0.00	4.594E-02	0.00	4.450E-02	0.00	3.938E-03	3.981E-03	1.307E-02	1.321E-02
2 - 3	3.710E-02	0.00	3.713E-02	0.00	3.532E-02	0.00	3.583E-02	0.00	3.405E-02	0.00	1.680E-03	1.699E-03	4.540E-03	4.589E-03
3 - 4	2.936E-02	0.00	2.864E-02	0.00	2.718E-02	0.00	2.801E-02	0.00	2.593E-02	0.00	7.804E-04	7.889E-04	1.983E-03	2.005E-03
4 - 5	2.280E-02	0.00	2.229E-02	0.00	2.080E-02	0.00	2.151E-02	0.00	1.970E-02	0.00	4.859E-04	4.912E-04	7.243E-04	7.322E-04
5 - 6	1.774E-02	0.00	1.736E-02	0.00	1.580E-02	0.00	1.665E-02	0.00	1.483E-02	0.00	3.549E-04	3.588E-04	3.549E-04	3.588E-04
6 - 7	1.361E-02	0.00	1.353E-02	0.00	1.194E-02	0.00	1.247E-02	0.00	1.106E-02	0.00	2.859E-04	2.891E-04	2.859E-04	2.891E-04
7 - 8	1.130E-02	0.00	1.020E-02	0.00	8.958E-03	0.00	9.497E-03	0.00	8.204E-03	0.00	2.798E-04	2.828E-04	2.798E-04	2.828E-04
8 - 9	7.199E-03	0.00	7.694E-03	0.00	6.671E-03	0.00	7.154E-03	0.00	6.034E-03	0.00	2.781E-04	2.811E-04	2.781E-04	2.811E-04
9 - 10	5.974E-03	0.00	5.824E-03	0.00	4.929E-03	0.00	5.330E-03	0.00	4.392E-03	0.00	2.689E-04	2.718E-04	2.689E-04	2.718E-04
10 - 11	4.556E-03	0.00	4.339E-03	0.00	3.618E-03	0.00	3.959E-03	0.00	3.209E-03	0.00	2.571E-04	2.599E-04	2.571E-04	2.599E-04
11 - 12	3.332E-03	0.00	3.251E-03	0.00	2.658E-03	0.00	2.920E-03	0.00	2.351E-03	0.00	2.550E-04	2.578E-04	2.550E-04	2.578E-04
12 - 13	2.534E-03	0.00	2.371E-03	0.00	1.947E-03	0.00	2.149E-03	0.00	1.709E-03	0.00	2.512E-04	2.539E-04	2.512E-04	2.539E-04
13 - 14	1.760E-03	0.00	1.769E-03	0.00	1.418E-03	0.00	1.601E-03	0.00	1.250E-03	0.00	2.387E-04	2.413E-04	2.387E-04	2.413E-04
14 - 15	1.343E-03	0.00	1.319E-03	0.00	1.043E-03	0.00	1.201E-03	0.00	9.172E-04	0.00	2.290E-04	2.315E-04	2.290E-04	2.315E-04
15 - 16	9.607E-04	0.00	9.280E-04	0.00	7.604E-04	0.00	8.363E-04	0.00	6.658E-04	0.00	2.165E-04	2.188E-04	2.165E-04	2.188E-04
16 - 17	6.520E-04	0.00	6.680E-04	0.00	5.539E-04	0.00	6.444E-04	0.00	4.872E-04	0.00	2.098E-04	2.121E-04	2.098E-04	2.121E-04
17 - 18	4.726E-04	0.00	4.928E-04	0.00	4.075E-04	0.00	4.737E-04	0.00	3.556E-04	0.00	2.052E-04	2.075E-04	2.052E-04	2.075E-04
18 - 19	3.378E-04	0.00	3.581E-04	0.00	2.947E-04	0.00	3.510E-04	0.00	2.593E-04	0.00	1.855E-04	1.875E-04	1.855E-04	1.875E-04
19 - 20	2.392E-04	0.00	2.633E-04	0.00	2.140E-04	0.00	2.610E-04	0.00	1.886E-04	0.00	1.463E-04	1.478E-04	1.463E-04	1.478E-04
20 - 21	1.742E-04	0.00	1.925E-04	0.00	1.587E-04	0.00	1.898E-04	0.00	1.374E-04	0.00	1.067E-04	1.079E-04	1.067E-04	1.079E-04
21 - 22	1.262E-04	0.00	1.424E-04	0.00	1.149E-04	0.00	1.413E-04	0.00	9.991E-05	0.00	7.874E-05	7.960E-05	7.874E-05	7.960E-05
22 - 23	9.075E-05	0.00	1.028E-04	0.00	8.345E-05	0.00	1.044E-04	0.00	7.254E-05	0.00	5.973E-05	6.038E-05	5.973E-05	6.038E-05
23 - 24	6.648E-05	0.00	7.869E-05	0.00	6.006E-05	0.00	7.723E-05	0.00	5.273E-05	0.00	4.648E-05	4.699E-05	4.648E-05	4.699E-05
24 - 25	4.943E-05	0.00	5.654E-05	0.00	4.595E-05	0.00	5.720E-05	0.00	3.824E-05	0.00	3.794E-05	3.835E-05	3.794E-05	3.835E-05
25 - 30	2.175E-05	0.00	2.549E-05	0.00	1.896E-05	0.00	2.578E-05	0.00	1.623E-05	0.00	2.025E-05	2.047E-05	2.025E-05	2.047E-05
30 - 35	4.876E-06	0.00	5.749E-06	0.00	3.904E-06	0.00	6.153E-06	0.00	3.267E-06	0.00	5.780E-06	5.843E-06	5.780E-06	5.843E-06
35 - 40	1.207E-06	0.00	1.438E-06	0.00	0.	0.00	1.488E-06	0.00	0.	0.00	1.521E-06	1.538E-06	1.521E-06	1.538E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.		0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.059677 MICROMETERS

FREQUENCY = 2463.250 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.812E-02	0.00	6.288E-02	0.00	5.633E-02	0.00	5.831E-02	0.00	5.705E-02	0.00	1.331E-02	1.347E-02	6.486E-02	6.565E-02
0 - 1	5.886E-02	0.00	5.398E-02	0.00	4.572E-02	0.00	4.944E-02	0.00	4.356E-02	0.00	9.085E-03	9.196E-03	4.090E-02	4.139E-02
1 - 2	4.403E-02	0.00	4.045E-02	0.00	3.518E-02	0.00	3.770E-02	0.00	3.359E-02	0.00	3.964E-03	4.013E-03	1.316E-02	1.332E-02
2 - 3	3.254E-02	0.00	3.068E-02	0.00	2.700E-02	0.00	2.871E-02	0.00	2.567E-02	0.00	1.692E-03	1.712E-03	4.570E-03	4.626E-03
3 - 4	2.387E-02	0.00	2.275E-02	0.00	2.059E-02	0.00	2.196E-02	0.00	1.948E-02	0.00	7.856E-04	7.952E-04	1.996E-03	2.021E-03
4 - 5	1.788E-02	0.00	1.724E-02	0.00	1.564E-02	0.00	1.653E-02	0.00	1.474E-02	0.00	4.891E-04	4.951E-04	7.291E-04	7.380E-04
5 - 6	1.367E-02	0.00	1.321E-02	0.00	1.184E-02	0.00	1.265E-02	0.00	1.107E-02	0.00	3.573E-04	3.616E-04	3.573E-04	3.616E-04
6 - 7	1.034E-02	0.00	1.021E-02	0.00	8.913E-03	0.00	9.391E-03	0.00	8.246E-03	0.00	2.878E-04	2.913E-04	2.878E-04	2.913E-04
7 - 8	8.512E-03	0.00	7.651E-03	0.00	6.676E-03	0.00	7.110E-03	0.00	6.111E-03	0.00	2.816E-04	2.851E-04	2.816E-04	2.851E-04
8 - 9	5.374E-03	0.00	5.754E-03	0.00	4.970E-03	0.00	5.335E-03	0.00	4.498E-03	0.00	2.799E-04	2.833E-04	2.799E-04	2.833E-04
9 - 10	4.456E-03	0.00	4.349E-03	0.00	3.670E-03	0.00	3.973E-03	0.00	3.274E-03	0.00	2.707E-04	2.740E-04	2.707E-04	2.740E-04
10 - 11	3.394E-03	0.00	3.232E-03	0.00	2.697E-03	0.00	2.950E-03	0.00	2.390E-03	0.00	2.588E-04	2.619E-04	2.588E-04	2.619E-04
11 - 12	2.481E-03	0.00	2.422E-03	0.00	1.980E-03	0.00	2.173E-03	0.00	1.752E-03	0.00	2.567E-04	2.598E-04	2.567E-04	2.598E-04
12 - 13	1.887E-03	0.00	1.765E-03	0.00	1.450E-03	0.00	1.601E-03	0.00	1.273E-03	0.00	2.528E-04	2.559E-04	2.528E-04	2.559E-04
13 - 14	1.312E-03	0.00	1.319E-03	0.00	1.056E-03	0.00	1.192E-03	0.00	9.312E-04	0.00	2.403E-04	2.432E-04	2.403E-04	2.432E-04
14 - 15	1.001E-03	0.00	9.827E-04	0.00	7.769E-04	0.00	8.945E-04	0.00	6.832E-04	0.00	2.305E-04	2.334E-04	2.305E-04	2.334E-04
15 - 16	7.161E-04	0.00	6.913E-04	0.00	5.665E-04	0.00	6.226E-04	0.00	4.960E-04	0.00	2.179E-04	2.206E-04	2.179E-04	2.206E-04
16 - 17	4.860E-04	0.00	4.976E-04	0.00	4.126E-04	0.00	4.797E-04	0.00	3.630E-04	0.00	2.112E-04	2.138E-04	2.112E-04	2.138E-04
17 - 18	3.523E-04	0.00	3.671E-04	0.00	3.035E-04	0.00	3.527E-04	0.00	2.649E-04	0.00	2.066E-04	2.091E-04	2.066E-04	2.091E-04
18 - 19	2.517E-04	0.00	2.668E-04	0.00	2.196E-04	0.00	2.612E-04	0.00	1.932E-04	0.00	1.867E-04	1.890E-04	1.867E-04	1.890E-04
19 - 20	1.783E-04	0.00	1.961E-04	0.00	1.595E-04	0.00	1.944E-04	0.00	1.405E-04	0.00	1.472E-04	1.490E-04	1.472E-04	1.490E-04
20 - 21	1.298E-04	0.00	1.434E-04	0.00	1.182E-04	0.00	1.413E-04	0.00	1.024E-04	0.00	1.074E-04	1.087E-04	1.074E-04	1.087E-04
21 - 22	9.400E-05	0.00	1.061E-04	0.00	8.558E-05	0.00	1.052E-04	0.00	7.445E-05	0.00	7.926E-05	8.023E-05	7.926E-05	8.023E-05
22 - 23	6.761E-05	0.00	7.658E-05	0.00	6.217E-05	0.00	7.776E-05	0.00	5.406E-05	0.00	6.012E-05	6.085E-05	6.012E-05	6.085E-05
23 - 24	4.952E-05	0.00	5.860E-05	0.00	4.477E-05	0.00	5.749E-05	0.00	3.929E-05	0.00	4.679E-05	4.736E-05	4.679E-05	4.736E-05
24 - 25	3.683E-05	0.00	4.210E-05	0.00	3.423E-05	0.00	4.258E-05	0.00	2.851E-05	0.00	3.819E-05	3.865E-05	3.819E-05	3.865E-05
25 - 30	1.619E-05	0.00	1.897E-05	0.00	1.413E-05	0.00	1.919E-05	0.00	1.210E-05	0.00	2.038E-05	2.063E-05	2.038E-05	2.063E-05
30 - 35	3.722E-06	0.00	4.382E-06	0.00	2.980E-06	0.00	4.572E-06	0.00	2.494E-06	0.00	5.819E-06	5.890E-06	5.819E-06	5.890E-06
35 - 40	0.	0.00	1.098E-06	0.00	0.	0.00	1.136E-06	0.00	0.	0.00	1.531E-06	1.550E-06	1.531E-06	1.550E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.046388 MICROMETERS

FREQUENCY = 2471.340 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_g(km^{-1})$	$\sigma_g(km^{-1})$	$k_g(km^{-1})$	$\sigma_g(km^{-1})$
0	5.085E-02	0.00	4.925E-02	0.00	4.906E-02	0.00	4.793E-02	0.00	5.083E-02	0.00	1.335E-02	1.352E-02	6.585E-02	6.589E-02
0 - 1	4.510E-02	0.00	4.309E-02	0.00	4.087E-02	0.00	4.120E-02	0.00	3.906E-02	0.00	9.112E-03	9.229E-03	4.182E-02	4.154E-02
1 - 2	3.519E-02	0.00	3.350E-02	0.00	3.110E-02	0.00	3.215E-02	0.00	3.015E-02	0.00	3.976E-03	4.027E-03	1.319E-02	1.335E-02
2 - 3	2.720E-02	0.00	2.626E-02	0.00	2.406E-02	0.00	2.497E-02	0.00	2.313E-02	0.00	1.697E-03	1.718E-03	4.583E-03	4.642E-03
3 - 4	2.076E-02	0.00	1.997E-02	0.00	1.851E-02	0.00	1.942E-02	0.00	1.765E-02	0.00	7.879E-04	7.980E-04	2.002E-03	2.028E-03
4 - 5	1.587E-02	0.00	1.538E-02	0.00	1.417E-02	0.00	1.485E-02	0.00	1.343E-02	0.00	4.906E-04	4.969E-04	7.313E-04	7.406E-04
5 - 6	1.228E-02	0.00	1.191E-02	0.00	1.077E-02	0.00	1.143E-02	0.00	1.015E-02	0.00	3.583E-04	3.629E-04	3.583E-04	3.629E-04
6 - 7	9.363E-03	0.00	9.258E-03	0.00	8.156E-03	0.00	8.558E-03	0.00	7.586E-03	0.00	2.887E-04	2.924E-04	2.887E-04	2.924E-04
7 - 8	7.719E-03	0.00	6.975E-03	0.00	6.131E-03	0.00	6.508E-03	0.00	5.662E-03	0.00	2.825E-04	2.861E-04	2.825E-04	2.861E-04
8 - 9	4.949E-03	0.00	5.273E-03	0.00	4.579E-03	0.00	4.907E-03	0.00	4.172E-03	0.00	2.887E-04	2.843E-04	2.887E-04	2.843E-04
9 - 10	4.069E-03	0.00	3.990E-03	0.00	3.407E-03	0.00	3.661E-03	0.00	3.041E-03	0.00	2.715E-04	2.749E-04	2.715E-04	2.749E-04
10 - 11	3.123E-03	0.00	2.983E-03	0.00	2.497E-03	0.00	2.726E-03	0.00	2.224E-03	0.00	2.596E-04	2.629E-04	2.596E-04	2.629E-04
11 - 12	2.292E-03	0.00	2.239E-03	0.00	1.841E-03	0.00	2.016E-03	0.00	1.630E-03	0.00	2.575E-04	2.608E-04	2.575E-04	2.608E-04
12 - 13	1.751E-03	0.00	1.642E-03	0.00	1.349E-03	0.00	1.478E-03	0.00	1.185E-03	0.00	2.536E-04	2.568E-04	2.536E-04	2.568E-04
13 - 14	1.223E-03	0.00	1.225E-03	0.00	9.817E-04	0.00	1.103E-03	0.00	8.661E-04	0.00	2.410E-04	2.441E-04	2.410E-04	2.441E-04
14 - 15	9.386E-04	0.00	9.151E-04	0.00	7.226E-04	0.00	8.274E-04	0.00	6.357E-04	0.00	2.312E-04	2.342E-04	2.312E-04	2.342E-04
15 - 16	6.756E-04	0.00	6.437E-04	0.00	5.268E-04	0.00	5.758E-04	0.00	4.615E-04	0.00	2.186E-04	2.214E-04	2.186E-04	2.214E-04
16 - 17	4.606E-04	0.00	4.633E-04	0.00	3.841E-04	0.00	4.436E-04	0.00	3.377E-04	0.00	2.119E-04	2.146E-04	2.119E-04	2.146E-04
17 - 18	3.335E-04	0.00	3.418E-04	0.00	2.827E-04	0.00	3.261E-04	0.00	2.467E-04	0.00	2.072E-04	2.098E-04	2.072E-04	2.098E-04
18 - 19	2.374E-04	0.00	2.432E-04	0.00	2.044E-04	0.00	2.418E-04	0.00	1.800E-04	0.00	1.873E-04	1.897E-04	1.873E-04	1.897E-04
19 - 20	1.676E-04	0.00	1.825E-04	0.00	1.486E-04	0.00	1.797E-04	0.00	1.310E-04	0.00	1.477E-04	1.495E-04	1.477E-04	1.495E-04
20 - 21	1.216E-04	0.00	1.332E-04	0.00	1.102E-04	0.00	1.307E-04	0.00	9.553E-05	0.00	1.077E-04	1.091E-04	1.077E-04	1.091E-04
21 - 22	8.775E-05	0.00	9.861E-05	0.00	7.978E-05	0.00	9.733E-05	0.00	6.948E-05	0.00	7.949E-05	8.051E-05	7.949E-05	8.051E-05
22 - 23	6.297E-05	0.00	7.103E-05	0.00	5.796E-05	0.00	7.192E-05	0.00	5.048E-05	0.00	6.030E-05	6.107E-05	6.030E-05	6.107E-05
23 - 24	4.607E-05	0.00	5.431E-05	0.00	4.167E-05	0.00	5.322E-05	0.00	3.674E-05	0.00	4.693E-05	4.753E-05	4.693E-05	4.753E-05
24 - 25	3.419E-05	0.00	3.904E-05	0.00	3.195E-05	0.00	3.937E-05	0.00	2.663E-05	0.00	3.830E-05	3.879E-05	3.830E-05	3.879E-05
25 - 30	1.498E-05	0.00	1.751E-05	0.00	1.316E-05	0.00	1.769E-05	0.00	1.129E-05	0.00	2.044E-05	2.070E-05	2.044E-05	2.070E-05
30 - 35	3.205E-06	0.00	3.773E-06	0.00	2.565E-06	0.00	4.191E-06	0.00	2.147E-06	0.00	5.836E-06	5.910E-06	5.836E-06	5.910E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.536E-06	1.555E-06	1.536E-06	1.555E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.021184 MICROMETERS

FREQUENCY = 2486.830 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
u	3.177E-02	0.00	3.226E-02	0.00	3.490E-02	0.00	3.272E-02	0.00	3.650E-02	0.00	1.343E-02	1.361E-02	6.542E-02	6.633E-02
0 - 1	2.845E-02	0.00	2.836E-02	0.00	2.844E-02	0.00	2.818E-02	0.00	2.795E-02	0.00	9.164E-03	9.291E-03	4.125E-02	4.182E-02
1 - 2	2.252E-02	0.00	2.236E-02	0.00	2.206E-02	0.00	2.213E-02	0.00	2.154E-02	0.00	3.999E-03	4.054E-03	1.327E-02	1.345E-02
2 - 3	1.786E-02	0.00	1.787E-02	0.00	1.707E-02	0.00	1.728E-02	0.00	1.649E-02	0.00	1.706E-03	1.730E-03	4.609E-03	4.673E-03
3 - 4	1.413E-02	0.00	1.380E-02	0.00	1.315E-02	0.00	1.352E-02	0.00	1.257E-02	0.00	7.924E-04	8.034E-04	2.014E-03	2.041E-03
4 - 5	1.099E-02	0.00	1.076E-02	0.00	1.018E-02	0.00	1.040E-02	0.00	9.569E-03	0.00	4.934E-04	5.002E-04	7.354E-04	7.456E-04
5 - 6	8.567E-03	0.00	8.392E-03	0.00	7.664E-03	0.00	8.059E-03	0.00	7.207E-03	0.00	3.604E-04	3.654E-04	3.604E-04	3.654E-04
6 - 7	6.582E-03	0.00	6.548E-03	0.00	5.803E-03	0.00	6.051E-03	0.00	5.374E-03	0.00	2.903E-04	2.944E-04	2.903E-04	2.944E-04
7 - 8	5.468E-03	0.00	4.941E-03	0.00	4.353E-03	0.00	4.611E-03	0.00	3.932E-03	0.00	2.841E-04	2.880E-04	2.841E-04	2.880E-04
8 - 9	3.498E-03	0.00	3.737E-03	0.00	3.243E-03	0.00	3.478E-03	0.00	2.935E-03	0.00	2.823E-04	2.863E-04	2.823E-04	2.863E-04
9 - 10	2.902E-03	0.00	2.828E-03	0.00	2.400E-03	0.00	2.591E-	0.00	2.135E-03	0.00	2.730E-04	2.768E-04	2.730E-04	2.768E-04
10 - 11	2.215E-03	0.00	2.110E-03	0.00	1.759E-03	0.00	1.925E-03	0.00	1.561E-03	0.00	2.610E-04	2.646E-04	2.610E-04	2.646E-04
11 - 12	1.621E-03	0.00	1.581E-03	0.00	1.294E-03	0.00	1.422E-03	0.00	1.144E-03	0.00	2.589E-04	2.625E-04	2.589E-04	2.625E-04
12 - 13	1.233E-03	0.00	1.154E-03	0.00	9.479E-04	0.00	1.045E-03	0.00	8.318E-04	0.00	2.550E-04	2.586E-04	2.550E-04	2.586E-04
13 - 14	8.563E-04	0.00	8.604E-04	0.00	6.898E-04	0.00	7.791E-04	0.00	6.082E-04	0.00	2.424E-04	2.458E-04	2.424E-04	2.458E-04
14 - 15	6.530E-04	0.00	6.419E-04	0.00	5.075E-04	0.00	5.846E-04	0.00	4.463E-04	0.00	2.325E-04	2.358E-04	2.325E-04	2.358E-04
15 - 16	4.668E-04	0.00	4.515E-04	0.00	3.700E-04	0.00	4.069E-04	0.00	3.240E-04	0.00	2.198E-04	2.229E-04	2.198E-04	2.229E-04
16 - 17	3.166E-04	0.00	3.250E-04	0.00	2.695E-04	0.00	3.135E-04	0.00	2.370E-04	0.00	2.131E-04	2.160E-04	2.131E-04	2.160E-04
17 - 18	2.295E-04	0.00	2.398E-04	0.00	1.983E-04	0.00	2.304E-04	0.00	1.730E-04	0.00	2.084E-04	2.113E-04	2.084E-04	2.113E-04
18 - 19	1.641E-04	0.00	1.742E-04	0.00	1.434E-04	0.00	1.708E-04	0.00	1.262E-04	0.00	1.883E-04	1.910E-04	1.883E-04	1.910E-04
19 - 20	1.163E-04	0.00	1.282E-04	0.00	1.041E-04	0.00	1.270E-04	0.00	9.177E-05	0.00	1.485E-04	1.506E-04	1.485E-04	1.506E-04
20 - 21	8.473E-05	0.00	9.365E-05	0.00	7.723E-05	0.00	9.234E-05	0.00	6.686E-05	0.00	1.083E-04	1.098E-04	1.083E-04	1.098E-04
21 - 22	6.138E-05	0.00	6.932E-05	0.00	5.590E-05	0.00	6.876E-05	0.00	4.861E-05	0.00	7.994E-05	8.105E-05	7.994E-05	8.105E-05
22 - 23	4.416E-05	0.00	5.002E-05	0.00	4.061E-05	0.00	5.080E-05	0.00	3.529E-05	0.00	6.064E-05	6.148E-05	6.064E-05	6.148E-05
23 - 24	3.235E-05	0.00	3.828E-05	0.00	2.921E-05	0.00	3.758E-05	0.00	2.556E-05	0.00	4.719E-05	4.785E-05	4.719E-05	4.785E-05
24 - 25	2.405E-05	0.00	2.752E-05	0.00	2.237E-05	0.00	2.783E-05	0.00	1.860E-05	0.00	3.905E-05	3.852E-05	3.905E-05	3.852E-05
25 - 30	1.058E-05	0.00	1.240E-05	0.00	9.227E-06	0.00	1.254E-05	0.00	7.897E-06	0.00	2.056E-05	2.084E-05	2.056E-05	2.084E-05
30 - 35	2.333E-06	0.00	2.747E-06	0.00	1.868E-06	0.00	2.988E-06	0.00	1.563E-06	0.00	5.869E-06	5.950E-06	5.869E-06	5.950E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.545E-06	1.566E-06	1.545E-06	1.566E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.005431 MICROMETERS

FREQUENCY = 2496.610 WAVENUMBERS

H (KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$
0	3.194E-02	0.00	3.057E-02	0.00	2.979E-02	0.00	2.944E-02	0.00	3.068E-02	0.00	1.347E-02	1.367E-02	6.566E-02	6.661E-02
0 - 1	2.807E-02	0.00	2.657E-02	0.00	2.419E-02	0.00	2.515E-02	0.00	2.339E-02	0.00	9.196E-03	9.330E-03	4.140E-02	4.200E-02
1 - 2	2.156E-02	0.00	2.042E-02	0.00	1.870E-02	0.00	1.948E-02	0.00	1.803E-02	0.00	4.013E-03	4.071E-03	1.332E-02	1.351E-02
2 - 3	1.645E-02	0.00	1.586E-02	0.00	1.441E-02	0.00	1.501E-02	0.00	1.379E-02	0.00	1.712E-03	1.737E-03	4.626E-03	4.693E-03
3 - 4	1.245E-02	0.00	1.197E-02	0.00	1.104E-02	0.00	1.161E-02	0.00	1.049E-02	0.00	7.952E-04	8.068E-04	2.021E-03	2.050E-03
4 - 5	9.471E-03	0.00	9.181E-03	0.00	8.422E-03	0.00	8.833E-03	0.00	7.953E-03	0.00	4.951E-04	5.023E-04	7.380E-04	7.488E-04
5 - 6	7.295E-03	0.00	7.083E-03	0.00	6.386E-03	0.00	6.782E-03	0.00	5.978E-03	0.00	3.616E-04	3.669E-04	3.616E-04	3.669E-04
6 - 7	5.547E-03	0.00	5.493E-03	0.00	4.814E-03	0.00	5.055E-03	0.00	4.454E-03	0.00	2.914E-04	2.956E-04	2.914E-04	2.956E-04
7 - 8	4.506E-03	0.00	4.126E-03	0.00	3.608E-03	0.00	3.836E-03	0.00	3.300E-03	0.00	2.851E-04	2.892E-04	2.851E-04	2.892E-04
8 - 9	2.901E-03	0.00	3.106E-03	0.00	2.536E-03	0.00	2.882E-03	0.00	2.428E-03	0.00	2.832E-04	2.875E-04	2.833E-04	2.875E-04
9 - 10	2.408E-03	0.00	2.349E-03	0.00	1.982E-03	0.00	2.146E-03	0.00	1.767E-03	0.00	2.740E-04	2.780E-04	2.740E-04	2.780E-04
10 - 11	1.834E-03	0.00	1.746E-03	0.00	1.456E-03	0.00	1.594E-03	0.00	1.290E-03	0.00	2.619E-04	2.658E-04	2.619E-04	2.658E-04
11 - 12	1.341E-03	0.00	1.308E-03	0.00	1.069E-03	0.00	1.174E-03	0.00	9.454E-04	0.00	2.598E-04	2.636E-04	2.598E-04	2.636E-04
12 - 13	1.019E-03	0.00	9.531E-04	0.00	7.829E-04	0.00	8.649E-04	0.00	6.972E-04	0.00	2.559E-04	2.597E-04	2.559E-04	2.597E-04
13 - 14	7.076E-04	0.00	7.120E-04	0.00	5.708E-04	0.00	6.441E-04	0.00	5.026E-04	0.00	2.432E-04	2.468E-04	2.432E-04	2.468E-04
14 - 15	5.394E-04	0.00	5.305E-04	0.00	4.194E-04	0.00	4.8 3E-04	0.00	3.688E-04	0.00	2.330E-04	2.368E-04	2.334E-04	2.368E-04
15 - 16	3.855E-04	0.00	3.731E-04	0.00	3.058E-04	0.00	3.364E-04	0.00	2.677E-04	0.00	2.206E-04	2.238E-04	2.206E-04	2.238E-04
16 - 17	2.615E-04	0.00	2.686E-04	0.00	2.227E-04	0.00	2.592E-04	0.00	1.959E-04	0.00	2.138E-04	2.169E-04	2.138E-04	2.169E-04
17 - 18	1.890E-04	0.00	1.881E-04	0.00	1.638E-04	0.00	1.905E-04	0.00	1.430E-04	0.00	2.091E-04	2.121E-04	2.091E-04	2.121E-04
18 - 19	1.356E-04	0.00	1.340E-04	0.00	1.185E-04	0.00	1.412E-04	0.00	1.042E-04	0.00	1.890E-04	1.918E-04	1.890E-04	1.918E-04
19 - 20	9.637E-05	0.00	1.059E-04	0.00	8.606E-05	0.00	1.050E-04	0.00	7.583E-05	0.00	1.490E-04	1.512E-04	1.490E-04	1.512E-04
20 - 21	7.000E-05	0.00	7.742E-05	0.00	6.381E-05	0.00	7.633E-05	0.00	5.523E-05	0.00	1.087E-04	1.103E-04	1.087E-04	1.103E-04
21 - 22	5.071E-05	0.00	5.726E-05	0.00	4.618E-05	0.00	5.686E-05	0.00	4.016E-05	0.00	8.023E-05	8.140E-05	8.023E-05	8.140E-05
22 - 23	3.649E-05	0.00	4.136E-05	0.00	3.355E-05	0.00	4.201E-05	0.00	2.916E-05	0.00	6.086E-05	6.174E-05	6.086E-05	6.174E-05
23 - 24	2.673E-05	0.00	3.165E-05	0.00	2.416E-05	0.00	3.106E-05	0.00	2.119E-05	0.00	4.736E-05	4.805E-05	4.736E-05	4.805E-05
24 - 25	1.988E-05	0.00	2.274E-05	0.00	1.847E-05	0.00	2.301E-05	0.00	1.537E-05	0.00	3.866E-05	3.922E-05	3.866E-05	3.922E-05
25 - 30	8.750E-06	0.00	1.026E-05	0.00	7.626E-06	0.00	1.037E-05	0.00	6.525E-06	0.00	2.063E-05	2.093E-05	2.063E-05	2.093E-05
30 - 35	2.011E-06	0.00	2.368E-06	0.00	1.610E-06	0.00	2.475E-06	0.00	1.347E-06	0.00	5.890E-06	5.976E-06	5.890E-06	5.976E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.550E-06	1.573E-06	1.550E-06	1.573E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 4.003171 MICROMETERS

FREQUENCY = 2498.020 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.612E-02	0.00	2.636E-02	0.00	2.820E-02	0.00	2.659E-02	0.00	2.945E-02	0.00	1.348E-02	1.368E-02	6.569E-02	6.665E-02
0 - 1	2.330E-02	0.00	2.309E-02	0.00	2.288E-02	0.00	2.281E-02	0.00	2.241E-02	0.00	9.201E-03	9.336E-03	4.142E-02	4.202E-02
1 - 2	1.835E-02	0.00	1.812E-02	0.00	1.772E-02	0.00	1.787E-02	0.00	1.725E-02	0.00	4.015E-03	4.074E-03	1.332E-02	1.352E-02
2 - 3	1.447E-02	0.00	1.443E-02	0.00	1.369E-02	0.00	1.392E-02	0.00	1.320E-02	0.00	1.713E-03	1.738E-03	4.628E-03	4.696E-03
3 - 4	1.139E-02	0.00	1.110E-02	0.00	1.053E-02	0.00	1.087E-02	0.00	1.005E-02	0.00	7.956E-04	8.073E-04	2.022E-03	2.051E-03
4 - 5	8.833E-03	0.00	8.636E-03	0.00	8.062E-03	0.00	8.340E-03	0.00	7.639E-03	0.00	4.954E-04	5.026E-04	7.384E-04	7.492E-04
5 - 6	6.872E-03	0.00	6.723E-03	0.00	6.129E-03	0.00	6.454E-03	0.00	5.751E-03	0.00	3.618E-04	3.671E-04	3.618E-04	3.671E-04
6 - 7	5.271E-03	0.00	5.241E-03	0.00	4.629E-03	0.00	4.835E-03	0.00	4.289E-03	0.00	2.915E-04	2.958E-04	2.915E-04	2.958E-04
7 - 8	4.388E-03	0.00	3.950E-03	0.00	3.474E-03	0.00	3.682E-03	0.00	3.180E-03	0.00	2.852E-04	2.894E-04	2.852E-04	2.894E-04
8 - 9	2.781E-03	0.00	2.982E-03	0.00	2.538E-03	0.00	2.773E-03	0.00	2.340E-03	0.00	2.835E-04	2.876E-04	2.835E-04	2.876E-04
9 - 10	2.316E-03	0.00	2.259E-03	0.00	1.910E-03	0.00	2.068E-03	0.00	1.703E-03	0.00	2.741E-04	2.781E-04	2.741E-04	2.781E-04
10 - 11	1.767E-03	0.00	1.681E-03	0.00	1.404E-03	0.00	1.536E-03	0.00	1.243E-03	0.00	2.621E-04	2.659E-04	2.621E-04	2.659E-04
11 - 12	1.292E-03	0.00	1.261E-03	0.00	1.030E-03	0.00	1.131E-03	0.00	9.113E-04	0.00	2.600E-04	2.638E-04	2.600E-04	2.638E-04
12 - 13	9.821E-04	0.00	9.186E-04	0.00	7.546E-04	0.00	8.336E-04	0.00	6.624E-04	0.00	2.561E-04	2.598E-04	2.561E-04	2.598E-04
13 - 14	6.822E-04	0.00	6.864E-04	0.00	5.495E-04	0.00	6.208E-04	0.00	4.845E-04	0.00	2.434E-04	2.469E-04	2.434E-04	2.469E-04
14 - 15	5.201E-04	0.00	5.113E-04	0.00	4.043E-04	0.00	4.658E-04	0.00	3.555E-04	0.00	2.335E-04	2.369E-04	2.335E-04	2.369E-04
15 - 16	3.718E-04	0.00	3.597E-04	0.00	2.943E-04	0.00	3.242E-04	0.00	2.581E-04	0.00	2.239E-04	2.207E-04	2.239E-04	2.207E-04
16 - 17	2.522E-04	0.00	2.589E-04	0.00	2.147E-04	0.00	2.498E-04	0.00	1.889E-04	0.00	2.139E-04	2.171E-04	2.139E-04	2.171E-04
17 - 18	1.829E-04	0.00	1.910E-04	0.00	1.579E-04	0.00	1.837E-04	0.00	1.378E-04	0.00	2.092E-04	2.123E-04	2.092E-04	2.123E-04
18 - 19	1.307E-04	0.00	1.388E-04	0.00	1.143E-04	0.00	1.360E-04	0.00	1.005E-04	0.00	1.891E-04	1.919E-04	1.891E-04	1.919E-04
19 - 20	9.264E-05	0.00	1.020E-04	0.00	8.296E-05	0.00	1.012E-04	0.00	7.311E-05	0.00	1.491E-04	1.513E-04	1.491E-04	1.513E-04
20 - 21	6.749E-05	0.00	7.464E-05	0.00	6.151E-05	0.00	7.356E-05	0.00	5.325E-05	0.00	1.088E-04	1.104E-04	1.088E-04	1.104E-04
21 - 22	4.888E-05	0.00	5.519E-05	0.00	4.451E-05	0.00	5.480E-05	0.00	3.872E-05	0.00	8.027E-05	8.145E-05	8.027E-05	8.145E-05
22 - 23	3.517E-05	0.00	3.986E-05	0.00	3.234E-05	0.00	4.049E-05	0.00	2.811E-05	0.00	6.089E-05	6.178E-05	6.089E-05	6.178E-05
23 - 24	2.577E-05	0.00	3.051E-05	0.00	2.329E-05	0.00	2.994E-05	0.00	2.043E-05	0.00	4.739E-05	4.808E-05	4.739E-05	4.808E-05
24 - 25	1.916E-05	0.00	2.197E-05	0.00	1.780E-05	0.00	2.218E-05	0.00	1.482E-05	0.00	3.867E-05	3.924E-05	3.867E-05	3.924E-05
25 - 30	8.432E-06	0.00	9.883E-06	0.00	7.351E-06	0.00	9.995E-06	0.00	6.290E-06	0.00	2.064E-05	2.094E-05	2.064E-05	2.094E-05
30 - 35	1.944E-06	0.00	2.288E-06	0.00	1.556E-06	0.00	2.384E-06	0.00	1.302E-06	0.00	5.893E-06	5.979E-06	5.893E-06	5.979E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.551E-06	1.574E-06	1.551E-06	1.574E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.999488 MICROMETERS

FREQUENCY = 2500.320 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$	$k_a(km^{-1})$	$\sigma_s(km^{-1})$
0	2.402E-02	0.00	2.445E-02	0.00	2.654E-02	0.00	2.485E-02	0.00	2.777E-02	0.00	1.349E-02	1.369E-02	6.574E-02	6.672E-02
0 - 1	2.151E-02	0.00	2.187E-02	0.00	2.354E-02	0.00	2.135E-02	0.00	2.114E-02	0.00	9.203E-03	9.345E-03	4.145E-02	4.207E-02
1 - 2	1.704E-02	0.00	1.693E-02	0.00	1.669E-02	0.00	1.676E-02	0.00	1.628E-02	0.00	4.018E-03	4.078E-03	1.333E-02	1.353E-02
2 - 3	1.352E-02	0.00	1.354E-02	0.00	1.291E-02	0.00	1.308E-02	0.00	1.246E-02	0.00	1.714E-03	1.740E-03	4.632E-03	4.701E-03
3 - 4	1.070E-02	0.00	1.045E-02	0.00	9.93[illegible]E-03	0.00	1.023E-02	0.00	9.468E-03	0.00	7.963E-04	8.081E-04	2.023E-03	2.053E-03
4 - 5	8.319E-03	0.00	8.140E-03	0.00	7.60[illegible]E-03	0.00	7.862E-03	0.00	7.210E-03	0.00	4.958E-04	5.031E-04	7.390E-04	7.500E-04
5 - 6	6.479E-03	0.00	6.343E-03	0.00	5.72[illegible]E-03	0.00	6.068E-03	0.00	5.429E-03	0.00	3.621E-04	3.675E-04	3.621E-04	3.675E-04
6 - 7	4.974E-03	0.00	4.947E-03	0.00	4.37[illegible]E-03	0.00	4.563E-03	0.00	4.048E-03	0.00	2.917E-04	2.961E-04	2.917E-04	2.961E-04
7 - 8	4.141E-03	0.00	3.729E-03	0.00	3.279E-03	0.00	3.476E-03	0.00	3.001E-03	0.00	2.855E-04	2.897E-04	2.855E-04	2.897E-04
8 - 9	2.626E-03	0.00	2.815E-03	0.00	2.442E-03	0.00	2.618E-03	0.00	2.208E-03	0.00	2.837E-04	2.879E-04	2.837E-04	2.879E-04
9 - 10	2.186E-03	0.00	2.132E-03	0.00	1.802E-03	0.00	1.952E-03	0.00	1.607E-03	0.00	2.743E-04	2.784E-04	2.743E-04	2.784E-04
10 - 11	1.668E-03	0.00	1.587E-03	0.00	1.325E-03	0.00	1.449E-03	0.00	1.173E-03	0.00	2.623E-04	2.662E-04	2.623E-04	2.662E-04
11 - 12	1.219E-03	0.00	1.190E-03	0.00	9.721E-04	0.00	1.067E-03	0.00	8.599E-04	0.00	2.602E-04	2.641E-04	2.602E-04	2.641E-04
12 - 13	9.267E-04	0.00	8.668E-04	0.00	7.121E-04	0.00	7.867E-04	0.00	6.251E-04	0.00	2.563E-04	2.601E-04	2.563E-04	2.601E-04
13 - 14	6.436E-04	0.00	6.476E-04	0.00	5.185E-04	0.00	5.859E-04	0.00	4.572E-04	0.00	2.436E-04	2.472E-04	2.436E-04	2.472E-04
14 - 15	4.906E-04	0.00	4.824E-04	0.00	3.814E-04	0.00	4.397E-04	0.00	3.354E-04	0.00	2.337E-04	2.371E-04	2.337E-04	2.371E-04
15 - 16	3.507E-04	0.00	3.394E-04	0.00	2.781E-04	0.00	3.060E-04	0.00	2.435E-04	0.00	2.209E-04	2.242E-04	2.209E-04	2.242E-04
16 - 17	2.378E-04	0.00	2.443E-04	0.00	2.026E-04	0.00	2.358E-04	0.00	1.782E-04	0.00	2.141E-04	2.173E-04	2.141E-04	2.173E-04
17 - 18	1.724E-04	0.00	1.802E-04	0.00	1.490E-04	0.00	1.733E-04	0.00	1.300E-04	0.00	2.094E-04	2.125E-04	2.094E-04	2.125E-04
18 - 19	1.233E-04	0.00	1.318E-04	0.00	1.078E-04	0.00	1.284E-04	0.00	9.481E-05	0.00	1.893E-04	1.921E-04	1.893E-04	1.921E-04
19 - 20	8.738E-05	0.00	9.628E-05	0.00	7.827E-05	0.00	9.554E-05	0.00	6.898E-05	0.00	1.492E-04	1.514E-04	1.492E-04	1.514E-04
20 - 21	6.366E-05	0.00	7.043E-05	0.00	5.804E-05	0.00	6.943E-05	0.00	5.024E-05	0.00	1.089E-04	1.105E-04	1.089E-04	1.105E-04
21 - 22	4.612E-05	0.00	5.208E-05	0.00	4.200E-05	0.00	5.172E-05	0.00	3.653E-05	0.00	8.034E-05	8.153E-05	8.034E-05	8.153E-05
22 - 23	3.319E-05	0.00	3.762E-05	0.00	3.051E-05	0.00	3.822E-05	0.00	2.652E-05	0.00	6.094E-05	6.184E-05	6.094E-05	6.184E-05
23 - 24	2.431E-05	0.00	2.879E-05	0.00	2.197E-05	0.00	2.826E-05	0.00	1.927E-05	0.00	4.742E-05	4.813E-05	4.742E-05	4.813E-05
24 - 25	1.508E-05	0.00	2.068E-05	0.00	1.680E-05	0.00	2.093E-05	0.00	1.398E-05	0.00	3.871E-05	3.928E-05	3.871E-05	3.928E-05
25 - 30	7.959E-06	0.00	9.329E-06	0.00	6.936E-06	0.00	9.436E-06	0.00	5.934E-06	0.00	2.066E-05	2.096E-05	2.066E-05	2.096E-05
30 - 35	1.832E-06	0.00	2.157E-06	0.00	1.467E-06	0.00	2.252E-06	0.00	1.227E-06	0.00	5.898E-06	5.985E-06	5.898E-06	5.985E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.552E-06	1.575E-06	1.552E-06	1.575E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.984286 MICROMETERS

FREQUENCY = 2509.860 WAVENUMBERS

		TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	HT(Km)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
	0	1.932E-02	0.00	2.022E-02	0.00	2.181E-02	0.00	2.049E-02	0.00	2.277E-02	0.00	1.354E-02	1.375E-02	6.596E-02	6.699E-02
0 -	1	1.783E-02	0.00	1.776E-02	0.00	1.772E-02	0.00	1.762E-02	0.00	1.755E-02	0.00	9.239E-03	9.383E-03	4.159E-02	4.224E-02
1 -	2	1.410E-02	0.00	1.399E-02	0.00	1.373E-02	0.00	1.382E-02	0.00	1.337E-02	0.00	4.631E-03	4.094E-03	1.338E-02	1.359E-02
2 -	3	1.117E-02	0.00	1.117E-02	0.00	1.061E-02	0.00	1.077E-02	0.00	1.023E-02	0.00	1.720E-03	1.747E-03	4.647E-03	4.720E-03
3 -	4	8.830E-03	0.00	8.611E-03	0.00	8.166E-03	0.00	8.421E-03	0.00	7.738E-03	0.00	7.989E-04	8.113E-04	2.030E-03	2.062E-03
4 -	5	6.855E-03	0.00	6.704E-03	0.00	6.249E-03	0.00	6.467E-03	0.00	5.914E-03	0.00	4.974E-04	5.052E-04	7.415E-04	7.530E-04
5 -	6	5.334E-03	0.00	5.219E-03	0.00	4.747E-03	0.00	5.003E-03	0.00	4.450E-03	0.00	3.633E-04	3.690E-04	3.633E-04	3.690E-04
6 -	7	4.098E-03	0.00	4.067E-03	0.00	3.554E-03	0.00	3.747E-03	0.00	3.315E-03	0.00	2.927E-04	2.973E-04	2.927E-04	2.973E-04
7 -	8	3.400E-03	0.00	3.063E-03	0.00	2.687E-03	0.00	2.851E-03	0.00	2.456E-03	0.00	2.864E-04	2.909E-04	2.864E-04	2.909E-04
8 -	9	2.157E-03	0.00	2.310E-03	0.00	2.000E-03	0.00	2.146E-03	0.00	1.808E-03	0.00	2.846E-04	2.891E-04	2.846E-04	2.891E-04
9 -	10	1.793E-03	0.00	1.748E-03	0.00	1.475E-03	0.00	1.598E-03	0.00	1.315E-03	0.00	2.752E-04	2.795E-04	2.752E-04	2.795E-04
10 -	11	1.367E-03	0.00	1.301E-03	0.00	1.084E-03	0.00	1.187E-03	0.00	9.598E-04	0.00	2.632E-04	2.673E-04	2.632E-04	2.673E-04
11 -	12	9.983E-04	0.00	9.741E-04	0.00	7.954E-04	0.00	8.740E-04	0.00	7.035E-04	0.00	2.610E-04	2.651E-04	2.610E-04	2.651E-04
12 -	13	7.584E-04	0.00	7.093E-04	0.00	5.826E-04	0.00	6.441E-04	0.00	5.114E-04	0.00	2.571E-04	2.611E-04	2.571E-04	2.611E-04
13 -	14	5.263E-04	0.00	5.297E-04	0.00	4.242E-04	0.00	4.797E-04	0.00	3.740E-04	0.00	2.444E-04	2.482E-04	2.444E-04	2.482E-04
14 -	15	4.010E-04	0.00	3.946E-04	0.00	3.121E-04	0.00	3.600E-04	0.00	2.744E-04	0.00	2.344E-04	2.381E-04	2.344E-04	2.381E-04
15 -	16	2.865E-04	0.00	2.776E-04	0.00	2.275E-04	0.00	2.505E-04	0.00	1.932E-04	0.00	2.216E-04	2.251E-04	2.216E-04	2.251E-04
16 -	17	1.942E-04	0.00	1.998E-04	0.00	1.657E-04	0.00	1.930E-04	0.00	1.458E-04	0.00	2.148E-04	2.181E-04	2.148E-04	2.181E-04
17 -	18	1.408E-04	0.00	1.474E-04	0.00	1.219E-04	0.00	1.419E-04	0.00	1.064E-04	0.00	2.101E-04	2.133E-04	2.101E-04	2.133E-04
18 -	19	1.007E-04	0.00	1.071E-04	0.00	8.818E-05	0.00	1.051E-04	0.00	7.755E-05	0.00	1.899E-04	1.928E-04	1.899E-04	1.928E-04
19 -	20	7.141E-05	0.00	7.877E-05	0.00	6.402E-05	0.00	7.822E-05	0.00	5.643E-05	0.00	1.497E-04	1.520E-04	1.497E-04	1.520E-04
20 -	21	5.205E-05	0.00	5.762E-05	0.00	4.747E-05	0.00	5.685E-05	0.00	4.109E-05	0.00	1.092E-04	1.109E-04	1.092E-04	1.109E-04
21 -	22	3.772E-05	0.00	4.262E-05	0.00	3.435E-05	0.00	4.235E-05	0.00	2.987E-05	0.00	8.060E-05	8.186E-05	8.060E-05	8.186E-05
22 -	23	2.715E-05	0.00	3.079E-05	0.00	2.496E-05	0.00	3.129E-05	0.00	2.169E-05	0.00	6.114E-05	6.209E-05	6.114E-05	6.209E-05
23 -	24	1.985E-05	0.00	2.357E-05	0.00	1.797E-05	0.00	2.314E-05	0.00	1.576E-05	0.00	4.758E-05	4.832E-05	4.758E-05	4.832E-05
24 -	25	1.480E-05	0.00	1.693E-05	0.00	1.374E-05	0.00	1.714E-05	0.00	1.143E-05	0.00	3.883E-05	3.944E-05	3.883E-05	3.944E-05
25 -	30	6.518E-06	0.00	7.641E-06	0.00	5.674E-06	0.00	7.732E-06	0.00	4.853E-06	0.00	2.072E-05	2.105E-05	2.072E-05	2.105E-05
30 -	35	1.494E-06	0.00	1.758E-06	0.00	1.196E-06	0.00	1.847E-06	0.00	1.001E-06	0.00	5.917E-06	6.009E-06	5.917E-06	6.009E-06
35 -	40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.557E-06	1.581E-06	1.557E-06	1.581E-06
40 -	45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 -	50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 -	70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -	100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.965406 MICROMETERS

FREQUENCY = 2521.810 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.501E-02	0.00	1.521E-02	0.00	1.638E-02	0.00	1.540E-02	0.00	1.711E-02	0.00	1.359E-02	1.382E-02	6.623E-02	6.732E-02
0 - 1	1.341E-02	0.00	1.335E-02	0.00	1.331E-02	0.00	1.323E-02	0.00	1.304E-02	0.00	9.277E-03	9.430E-03	4.176E-02	4.245E-02
1 - 2	1.059E-02	0.00	1.050E-02	0.00	1.031E-02	0.00	1.037E-02	0.00	1.004E-02	0.00	4.048E-03	4.115E-03	1.343E-02	1.365E-02
2 - 3	8.381E-03	0.00	8.377E-03	0.00	7.967E-03	0.00	8.084E-03	0.00	7.685E-03	0.00	1.727E-03	1.756E-03	4.685E-03	4.743E-03
3 - 4	6.617E-03	0.00	6.454E-03	0.00	6.130E-03	0.00	6.318E-03	0.00	5.851E-03	0.00	8.022E-04	8.154E-04	2.038E-03	2.072E-03
4 - 5	5.137E-03	0.00	5.025E-03	0.00	4.693E-03	0.00	4.852E-03	0.00	4.445E-03	0.00	4.995E-04	5.077E-04	7.445E-04	7.568E-04
5 - 6	3.999E-03	0.00	3.914E-03	0.00	3.566E-03	0.00	3.755E-03	0.00	3.345E-03	0.00	3.648E-04	3.708E-04	3.648E-04	3.708E-04
6 - 7	3.068E-03	0.00	3.051E-03	0.00	2.694E-03	0.00	2.814E-03	0.00	2.493E-03	0.00	2.939E-04	2.988E-04	2.939E-04	2.988E-04
7 - 8	2.552E-03	0.00	2.299E-03	0.00	2.020E-03	0.00	2.142E-03	0.00	1.848E-03	0.00	2.876E-04	2.923E-04	2.876E-04	2.923E-04
8 - 9	1.620E-03	0.00	1.735E-03	0.00	1.504E-03	0.00	1.613E-03	0.00	1.359E-03	0.00	2.858E-04	2.905E-04	2.858E-04	2.905E-04
9 - 10	1.347E-03	0.00	1.314E-03	0.00	1.110E-03	0.00	1.202E-03	0.00	9.893E-04	0.00	2.764E-04	2.809E-04	2.764E-04	2.809E-04
10 - 11	1.027E-03	0.00	9.779E-04	0.00	8.153E-04	0.00	8.925E-04	0.00	7.223E-04	0.00	2.642E-04	2.686E-04	2.642E-04	2.686E-04
11 - 12	7.509E-04	0.00	7.327E-04	0.00	5.985E-04	0.00	6.576E-04	0.00	5.294E-04	0.00	2.621E-04	2.664E-04	2.621E-04	2.664E-04
12 - 13	5.706E-04	0.00	5.338E-04	0.00	4.384E-04	0.00	4.844E-04	0.00	3.848E-04	0.00	2.582E-04	2.624E-04	2.582E-04	2.624E-04
13 - 14	3.961E-04	0.00	3.986E-04	0.00	3.192E-04	0.00	3.608E-04	0.00	2.814E-04	0.00	2.454E-04	2.494E-04	2.454E-04	2.494E-04
14 - 15	3.019E-04	0.00	2.970E-04	0.00	2.348E-04	0.00	2.708E-04	0.00	2.065E-04	0.00	2.354E-04	2.393E-04	2.354E-04	2.393E-04
15 - 16	2.157E-04	0.00	2.089E-04	0.00	1.712E-04	0.00	1.884E-04	0.00	1.499E-04	0.00	2.225E-04	2.262E-04	2.225E-04	2.262E-04
16 - 17	1.462E-04	0.00	1.504E-04	0.00	1.247E-04	0.00	1.452E-04	0.00	1.097E-04	0.00	2.157E-04	2.192E-04	2.157E-04	2.192E-04
17 - 18	1.060E-04	0.00	1.109E-04	0.00	9.172E-05	0.00	1.067E-04	0.00	8.004E-05	0.00	2.109E-04	2.144E-04	2.109E-04	2.144E-04
18 - 19	7.583E-05	0.00	8.062E-05	0.00	6.635E-05	0.00	7.908E-05	0.00	5.836E-05	0.00	1.907E-04	1.938E-04	1.907E-04	1.938E-04
19 - 20	5.376E-05	0.00	5.928E-05	0.00	4.819E-05	0.00	5.883E-05	0.00	4.246E-05	0.00	1.503E-04	1.528E-04	1.503E-04	1.528E-04
20 - 21	3.917E-05	0.00	4.335E-05	0.00	3.573E-05	0.00	4.276E-05	0.00	3.092E-05	0.00	1.097E-04	1.115E-04	1.097E-04	1.115E-04
21 - 22	2.839E-05	0.00	3.207E-05	0.00	2.585E-05	0.00	3.185E-05	0.00	2.248E-05	0.00	8.093E-05	8.227E-05	8.093E-05	8.227E-05
22 - 23	2.043E-05	0.00	2.316E-05	0.00	1.878E-05	0.00	2.353E-05	0.00	1.632E-05	0.00	6.139E-05	6.240E-05	6.139E-05	6.240E-05
23 - 24	1.497E-05	0.00	1.773E-05	0.00	1.352E-05	0.00	1.740E-05	0.00	1.186E-05	0.00	4.778E-05	4.856E-05	4.778E-05	4.856E-05
24 - 25	1.113E-05	0.00	1.274E-05	0.00	1.034E-05	0.00	1.289E-05	0.00	8.605E-06	0.00	3.899E-05	3.964E-05	3.899E-05	3.964E-05
25 - 30	4.902E-06	0.00	5.746E-06	0.00	4.270E-06	0.00	5.813E-06	0.00	3.652E-06	0.00	2.081E-05	2.115E-05	2.081E-05	2.115E-05
30 - 35	1.121E-06	0.00	1.319E-06	0.00	0.	0.00	1.387E-06	0.00	0.	0.00	5.941E-06	6.039E-06	5.941E-06	6.039E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.564E-06	1.589E-06	1.564E-06	1.589E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.957158 MICROMETERS

FREQUENCY = 2527.060 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.449E-02	0.00	1.462E-02	0.00	1.553E-02	0.00	1.473E-02	0.00	1.613E-02	0.00	1.362E-02	1.385E-02	6.633E-02	6.747E-02
0 - 1	1.296E-02	0.00	1.285E-02	0.00	1.269E-02	0.00	1.269E-02	0.00	1.240E-02	0.00	9.294E-03	9.451E-03	4.183E-02	4.254E-02
1 - 2	1.022E-02	0.00	1.009E-02	0.00	9.829E-03	0.00	9.935E-03	0.00	9.553E-03	0.00	4.055E-03	4.124E-03	1.346E-02	1.368E-02
2 - 3	8.061E-03	0.00	8.025E-03	0.00	7.593E-03	0.00	7.734E-03	0.00	7.307E-03	0.00	1.730E-03	1.760E-03	4.675E-03	4.754E-03
3 - 4	6.338E-03	0.00	6.175E-03	0.00	5.837E-03	0.00	6.036E-03	0.00	5.560E-03	0.00	8.036E-04	8.172E-04	2.042E-03	2.077E-03
4 - 5	4.909E-03	0.00	4.797E-03	0.00	4.464E-03	0.00	4.631E-03	0.00	4.218E-03	0.00	5.004E-04	5.088E-04	7.458E-04	7.584E-04
5 - 6	3.816E-03	0.00	3.731E-03	0.00	3.383E-03	0.00	3.574E-03	0.00	3.172E-03	0.00	3.655E-04	3.716E-04	3.655E-04	3.716E-04
6 - 7	2.923E-03	0.00	2.903E-03	0.00	2.557E-03	0.00	2.676E-03	0.00	2.358E-03	0.00	2.944E-04	2.994E-04	2.944E-04	2.994E-04
7 - 8	2.416E-03	0.00	2.186E-03	0.00	1.913E-03	0.00	2.033E-03	0.00	1.748E-03	0.00	2.881E-04	2.930E-04	2.881E-04	2.930E-04
8 - 9	1.548E-03	0.00	1.649E-03	0.00	1.421E-03	0.00	1.529E-03	0.00	1.282E-03	0.00	2.863E-04	2.912E-04	2.863E-04	2.912E-04
9 - 10	1.278E-03	0.00	1.244E-03	0.00	1.050E-03	0.00	1.136E-03	0.00	9.324E-04	0.00	2.769E-04	2.815E-04	2.769E-04	2.815E-04
10 - 11	9.727E-04	0.00	9.266E-04	0.00	7.680E-04	0.00	8.428E-04	0.00	6.816E-04	0.00	2.647E-04	2.692E-04	2.647E-04	2.692E-04
11 - 12	7.100E-04	0.00	6.923E-04	0.00	5.651E-04	0.00	6.227E-04	0.00	4.995E-04	0.00	2.626E-04	2.670E-04	2.626E-04	2.670E-04
12 - 13	5.389E-04	0.00	5.042E-04	0.00	4.140E-04	0.00	4.572E-04	0.00	3.631E-04	0.00	2.586E-04	2.630E-04	2.586E-04	2.630E-04
13 - 14	3.732E-04	0.00	3.753E-04	0.00	3.012E-04	0.00	3.411E-04	0.00	2.655E-04	0.00	2.458E-04	2.500E-04	2.458E-04	2.500E-04
14 - 15	2.839E-04	0.00	2.801E-04	0.00	2.215E-04	0.00	2.559E-04	0.00	1.948E-04	0.00	2.358E-04	2.398E-04	2.358E-04	2.398E-04
15 - 16	2.324E-04	0.00	1.970E-04	0.00	1.615E-04	0.00	1.781E-04	0.00	1.414E-04	0.00	2.229E-04	2.267E-04	2.229E-04	2.267E-04
16 - 17	1.371E-04	0.00	1.418E-04	0.00	1.176E-04	0.00	1.372E-04	0.00	1.034E-04	0.00	2.161E-04	2.197E-04	2.161E-04	2.197E-04
17 - 18	9.941E-05	0.00	1.046E-04	0.00	8.650E-05	0.00	1.009E-04	0.00	7.548E-05	0.00	2.113E-04	2.149E-04	2.113E-04	2.149E-04
18 - 19	7.120E-05	0.00	7.602E-05	0.00	6.254E-05	0.00	7.477E-05	0.00	5.503E-05	0.00	1.910E-04	1.942E-04	1.910E-04	1.942E-04
19 - 20	5.053E-05	0.00	5.595E-05	0.00	4.542E-05	0.00	5.558E-05	0.00	4.001E-05	0.00	1.506E-04	1.531E-04	1.506E-04	1.531E-04
20 - 21	3.687E-05	0.00	4.089E-05	0.00	3.368E-05	0.00	4.043E-05	0.00	2.915E-05	0.00	1.099E-04	1.117E-04	1.099E-04	1.117E-04
21 - 22	2.675E-05	0.00	3.029E-05	0.00	2.438E-05	0.00	3.010E-05	0.00	2.119E-05	0.00	8.108E-05	8.245E-05	8.108E-05	8.245E-05
22 - 23	1.926E-05	0.00	2.196E-05	0.00	1.771E-05	0.00	2.224E-05	0.00	1.538E-05	0.00	6.150E-05	6.254E-05	6.150E-05	6.254E-05
23 - 24	1.413E-05	0.00	1.674E-05	0.00	1.274E-05	0.00	1.646E-05	0.00	1.118E-05	0.00	4.786E-05	4.867E-05	4.786E-05	4.867E-05
24 - 25	1.051E-05	0.00	1.204E-05	0.00	9.757E-06	0.00	1.219E-05	0.00	8.100E-06	0.00	3.906E-05	3.972E-05	3.906E-05	3.972E-05
25 - 30	4.635E-06	0.00	5.434E-06	0.00	4.026E-06	0.00	5.501E-06	0.00	3.442E-06	0.00	2.085E-05	2.120E-05	2.085E-05	2.120E-05
30 - 35	1.009E-06	0.00	1.188E-06	0.00	0.	0.00	1.316E-06	0.00	0.	0.00	5.952E-06	6.053E-06	5.952E-06	6.053E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.566E-06	1.593E-06	1.566E-06	1.593E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.956526 MICROMETERS

FREQUENCY = 2527.478 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$
0	1.403E-02	0.00	1.419E-02	0.00	1.517E-02	0.00	1.433E-02	0.00	1.579E-02	0.00	1.362E-02	1.385E-02	6.636E-02	6.748E-02
0 - 1	1.255E-02	0.00	1.247E-02	0.00	1.237E-02	0.00	1.234E-02	0.00	1.211E-02	0.00	9.295E-03	9.452E-03	4.184E-02	4.255E-02
1 - 2	9.905E-03	0.00	9.800E-03	0.00	9.582E-03	0.00	9.664E-03	0.00	9.325E-03	0.00	4.056E-03	4.125E-03	1.346E-02	1.369E-02
2 - 3	7.824E-03	0.00	7.803E-03	0.00	7.404E-03	0.00	7.528E-03	0.00	7.134E-03	0.00	1.731E-03	1.760E-03	4.675E-03	4.754E-03
3 - 4	6.163E-03	0.00	6.009E-03	0.00	5.694E-03	0.00	5.879E-03	0.00	5.430E-03	0.00	8.037E-04	8.173E-04	2.042E-03	2.077E-03
4 - 5	4.789E-03	0.00	4.673E-03	0.00	4.357E-03	0.00	4.513E-03	0.00	4.122E-03	0.00	5.004E-04	5.089E-04	7.460E-04	7.586E-04
5 - 6	3.718E-03	0.00	3.637E-03	0.00	3.306E-03	0.00	3.487E-03	0.00	3.101E-03	0.00	3.655E-04	3.717E-04	3.655E-04	3.717E-04
6 - 7	2.850E-03	0.00	2.832E-03	0.00	2.499E-03	0.00	2.613E-03	0.00	2.306E-03	0.00	2.945E-04	2.995E-04	2.945E-04	2.995E-04
7 - 8	2.361E-03	0.00	2.134E-03	0.00	1.871E-03	0.00	1.987E-03	0.00	1.711E-03	0.00	2.881E-04	2.930E-04	2.881E-04	2.930E-04
8 - 9	1.509E-03	0.00	1.611E-03	0.00	1.391E-03	0.00	1.495E-03	0.00	1.256E-03	0.00	2.864E-04	2.912E-04	2.864E-04	2.912E-04
9 - 10	1.249E-03	0.00	1.217E-03	0.00	1.028E-03	0.00	1.112E-03	0.00	9.140E-04	0.00	2.769E-04	2.816E-04	2.769E-04	2.816E-04
10 - 11	9.515E-04	0.00	9.063E-04	0.00	7.528E-04	0.00	8.254E-04	0.00	6.679E-04	0.00	2.648E-04	2.692E-04	2.648E-04	2.692E-04
11 - 12	6.950E-04	0.00	6.779E-04	0.00	5.536E-04	0.00	6.093E-04	0.00	4.895E-04	0.00	2.626E-04	2.671E-04	2.626E-04	2.671E-04
12 - 13	5.278E-04	0.00	4.939E-04	0.00	4.056E-04	0.00	4.478E-04	0.00	3.558E-04	0.00	2.587E-04	2.630E-04	2.587E-04	2.630E-04
13 - 14	3.659E-04	0.00	3.680E-04	0.00	2.951E-04	0.00	3.339E-04	0.00	2.602E-04	0.00	2.459E-04	2.500E-04	2.459E-04	2.500E-04
14 - 15	2.786E-04	0.00	2.745E-04	0.00	2.171E-04	0.00	2.506E-04	0.00	1.909E-04	0.00	2.359E-04	2.399E-04	2.359E-04	2.399E-04
15 - 16	1.988E-04	0.00	1.931E-04	0.00	1.582E-04	0.00	1.744E-04	0.00	1.386E-04	0.00	2.230E-04	2.267E-04	2.230E-04	2.267E-04
16 - 17	1.347E-04	0.00	1.390E-04	0.00	1.153E-04	0.00	1.343E-04	0.00	1.014E-04	0.00	2.161E-04	2.198E-04	2.161E-04	2.198E-04
17 - 18	9.767E-05	0.00	1.025E-04	0.00	8.478E-05	0.00	9.877E-05	0.00	7.398E-05	0.00	2.113E-04	2.149E-04	2.113E-04	2.149E-04
18 - 19	6.991E-05	0.00	7.450E-05	0.00	6.130E-05	0.00	7.319E-05	0.00	5.393E-05	0.00	1.910E-04	1.943E-04	1.910E-04	1.943E-04
19 - 20	4.960E-05	0.00	5.482E-05	0.00	4.452E-05	0.00	5.442E-05	0.00	3.923E-05	0.00	1.506E-04	1.532E-04	1.506E-04	1.532E-04
20 - 21	3.616E-05	0.00	4.007E-05	0.00	3.302E-05	0.00	3.958E-05	0.00	2.857E-05	0.00	1.099E-04	1.117E-04	1.099E-04	1.117E-04
21 - 22	2.622E-05	0.00	2.967E-05	0.00	2.389E-05	0.00	2.947E-05	0.00	2.077E-05	0.00	8.109E-05	8.246E-05	8.109E-05	8.246E-05
22 - 23	1.888E-05	0.00	2.142E-05	0.00	1.736E-05	0.00	2.177E-05	0.00	1.508E-05	0.00	6.151E-05	6.255E-05	6.151E-05	6.255E-05
23 - 24	1.384E-05	0.00	1.640E-05	0.00	1.249E-05	0.00	1.611E-05	0.00	1.096E-05	0.00	4.787E-05	4.868E-05	4.787E-05	4.868E-05
24 - 25	1.029E-05	0.00	1.179E-05	0.00	9.561E-06	0.00	1.193E-05	0.00	7.944E-06	0.00	3.907E-05	3.973E-05	3.907E-05	3.973E-05
25 - 30	4.537E-06	0.00	5.318E-06	0.00	3.946E-06	0.00	5.383E-06	0.00	3.375E-06	0.00	2.085E-05	2.120E-05	2.085E-05	2.120E-05
30 - 35	1.002E-06	0.00	1.180E-06	0.00	0.	0.00	1.286E-06	0.00	0.	0.00	5.953E-06	6.054E-06	5.953E-06	6.054E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.567E-06	1.593E-06	1.567E-06	1.593E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.948667 MICROMETERS

FREQUENCY = 2532.500 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$	$k_a(km^{-1})$	$\sigma(km^{-1})$
0	1.340E-02	0.00	1.347E-02	0.00	1.326E-02	0.00	1.354E-02	0.00	1.484E-02	0.00	1.364E-02	1.388E-02	6.647E-02	6.762E-02
0 - 1	1.196E-02	0.00	1.184E-02	0.00	1.171E-02	0.00	1.170E-02	0.00	1.148E-02	0.00	9.311E-03	9.472E-03	4.191E-02	4.264E-02
1 - 2	9.411E-03	0.00	9.297E-03	0.00	9.082E-03	0.00	9.153E-03	0.00	8.846E-03	0.00	4.063E-03	4.133E-03	1.348E-02	1.372E-02
2 - 3	7.418E-03	0.00	7.386E-03	0.00	7.020E-03	0.00	7.130E-03	0.00	6.770E-03	0.00	1.734E-03	1.764E-03	4.683E-03	4.764E-03
3 - 4	5.836E-03	0.00	5.693E-03	0.00	5.403E-03	0.00	5.571E-03	0.00	5.157E-03	0.00	8.051E-04	8.190E-04	2.046E-03	2.081E-03
4 - 5	4.527E-03	0.00	4.428E-03	0.00	4.139E-03	0.00	4.281E-03	0.00	3.917E-03	0.00	5.013E-04	5.100E-04	7.472E-04	7.602E-04
5 - 6	3.524E-03	0.00	3.450E-03	0.00	3.138E-03	0.00	3.307E-03	0.00	2.951E-03	0.00	3.662E-04	3.725E-04	3.662E-04	3.725E-04
6 - 7	2.703E-03	0.00	2.687E-03	0.00	2.379E-03	0.00	2.483E-03	0.00	2.195E-03	0.00	2.950E-04	3.001E-04	2.950E-04	3.001E-04
7 - 8	2.232E-03	0.00	2.026E-03	0.00	1.780E-03	0.00	1.888E-03	0.00	1.631E-03	0.00	2.886E-04	2.936E-04	2.886E-04	2.936E-04
8 - 9	1.443E-03	0.00	1.532E-03	0.00	1.327E-03	0.00	1.423E-03	0.00	1.195E-03	0.00	2.869E-04	2.918E-04	2.869E-04	2.918E-04
9 - 10	1.188E-03	0.00	1.156E-03	0.00	9.816E-04	0.00	1.057E-03	0.00	8.697E-04	0.00	2.774E-04	2.822E-04	2.774E-04	2.822E-04
10 - 11	9.054E-04	0.00	8.635E-04	0.00	7.153E-04	0.00	7.852E-04	0.00	6.365E-04	0.00	2.652E-04	2.698E-04	2.652E-04	2.698E-04
11 - 12	6.618E-04	0.00	6.451E-04	0.00	5.276E-04	0.00	5.817E-04	0.00	4.664E-04	0.00	2.631E-04	2.676E-04	2.631E-04	2.676E-04
12 - 13	5.029E-04	0.00	4.710E-04	0.00	3.867E-04	0.00	4.258E-04	0.00	3.390E-04	0.00	2.591E-04	2.636E-04	2.591E-04	2.636E-04
13 - 14	3.485E-04	0.00	3.498E-04	0.00	2.811E-04	0.00	3.181E-04	0.00	2.478E-04	0.00	2.463E-04	2.505E-04	2.463E-04	2.505E-04
14 - 15	2.654E-04	0.00	2.615E-04	0.00	2.068E-04	0.00	2.386E-04	0.00	1.819E-04	0.00	2.363E-04	2.404E-04	2.363E-04	2.404E-04
15 - 16	1.893E-04	0.00	1.839E-04	0.00	1.507E-04	0.00	1.661E-04	0.00	1.320E-04	0.00	2.233E-04	2.272E-04	2.233E-04	2.272E-04
16 - 17	1.282E-04	0.00	1.324E-04	0.00	1.098E-04	0.00	1.279E-04	0.00	9.652E-05	0.00	2.165E-04	2.202E-04	2.165E-04	2.202E-04
17 - 18	9.299E-05	0.00	9.767E-05	0.00	8.077E-05	0.00	9.404E-05	0.00	7.048E-05	0.00	2.117E-04	2.154E-04	2.117E-04	2.154E-04
18 - 19	6.658E-05	0.00	7.094E-05	0.00	5.837E-05	0.00	6.973E-05	0.00	5.139E-05	0.00	1.914E-04	1.947E-04	1.914E-04	1.947E-04
19 - 20	4.724E-05	0.00	5.225E-05	0.00	4.241E-05	0.00	5.179E-05	0.00	3.736E-05	0.00	1.509E-04	1.535E-04	1.509E-04	1.535E-04
20 - 21	3.445E-05	0.00	3.815E-05	0.00	3.140E-05	0.00	3.770E-05	0.00	2.723E-05	0.00	1.101E-04	1.120E-04	1.101E-04	1.120E-04
21 - 22	2.498E-05	0.00	2.828E-05	0.00	2.277E-05	0.00	2.806E-05	0.00	1.979E-05	0.00	8.123E-05	8.263E-05	8.123E-05	8.263E-05
22 - 23	1.799E-05	0.00	2.039E-05	0.00	1.654E-05	0.00	2.073E-05	0.00	1.437E-05	0.00	6.161E-05	6.268E-05	6.161E-05	6.268E-05
23 - 24	1.319E-05	0.00	1.562E-05	0.00	1.189E-05	0.00	1.535E-05	0.00	1.045E-05	0.00	4.678E-05	4.795E-05	4.678E-05	4.795E-05
24 - 25	9.803E-06	0.00	1.123E-05	0.00	9.118E-06	0.00	1.136E-05	0.00	7.561E-06	0.00	3.914E-05	3.981E-05	3.914E-05	3.981E-05
25 - 30	4.320E-06	0.00	5.062E-06	0.00	3.758E-06	0.00	5.123E-06	0.00	3.215E-06	0.00	2.089E-05	2.125E-05	2.089E-05	2.125E-05
30 - 35	0.	0.00	1.059E-06	0.00	0.	0.00	1.223E-06	0.00	0.	0.00	5.963E-06	6.066E-06	5.963E-06	6.066E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.569E-06	1.596E-06	1.569E-06	1.596E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	

WAVELENGTH = 3.927159 MICROMETERS

FREQUENCY = 2546.370 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR	AEROSOL	HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.221E-02	0.00	3.262E-02	0.00	3.558E-02	0.00	3.310E-02	0.00	3.790E-02	0.00	1.371E-02	1.396E-02	6.679E-02	6.801E-02
0 - 1	2.986E-02	0.00	3.005E-02	0.00	3.210E-02	0.00	3.061E-02	0.00	3.345E-02	0.00	9.355E-03	9.527E-03	4.211E-02	4.288E-02
1 - 2	2.460E-02	0.00	2.478E-02	0.00	2.627E-02	0.00	2.508E-02	0.00	2.676E-02	0.00	4.082E-03	4.157E-03	1.355E-02	1.379E-02
2 - 3	2.024E-02	0.00	2.033E-02	0.00	2.122E-02	0.00	2.051E-02	0.00	2.140E-02	0.00	1.742E-03	1.774E-03	4.706E-03	4.792E-03
3 - 4	1.662E-02	0.00	1.662E-02	0.00	1.710E-02	0.00	1.684E-02	0.00	1.707E-02	0.00	8.089E-04	8.238E-04	2.056E-03	2.093E-03
4 - 5	1.353E-02	0.00	1.348E-02	0.00	1.383E-02	0.00	1.358E-02	0.00	1.361E-02	0.00	5.037E-04	5.129E-04	7.508E-04	7.645E-04
5 - 6	1.104E-02	0.00	1.102E-02	0.00	1.079E-02	0.00	1.090E-02	0.00	1.087E-02	0.00	3.679E-04	3.746E-04	3.679E-04	3.746E-04
6 - 7	8.852E-03	0.00	8.871E-03	0.00	8.801E-03	0.00	8.684E-03	0.00	8.413E-03	0.00	2.964E-04	3.018E-04	2.964E-04	3.018E-04
7 - 8	7.202E-03	0.00	7.043E-03	0.00	6.746E-03	0.00	6.876E-03	0.00	6.721E-03	0.00	2.900E-04	2.953E-04	2.900E-04	2.953E-04
8 - 9	5.586E-03	0.00	5.619E-03	0.00	5.197E-03	0.00	5.505E-03	0.00	5.000E-03	0.00	2.882E-04	2.935E-04	2.882E-04	2.935E-04
9 - 10	4.457E-03	0.00	4.322E-03	0.00	4.181E-03	0.00	4.178E-03	0.00	3.703E-03	0.00	2.787E-04	2.838E-04	2.787E-04	2.838E-04
10 - 11	3.543E-03	0.00	3.460E-03	0.00	2.965E-03	0.00	3.201E-03	0.00	2.773E-03	0.00	2.665E-04	2.714E-04	2.665E-04	2.714E-04
11 - 12	2.708E-03	0.00	2.645E-03	0.00	2.284E-03	0.00	2.481E-03	0.00	2.041E-03	0.00	2.643E-04	2.692E-04	2.643E-04	2.692E-04
12 - 13	2.153E-03	0.00	2.059E-03	0.00	1.693E-03	0.00	1.740E-03	0.00	1.488E-03	0.00	2.603E-04	2.651E-04	2.603E-04	2.651E-04
13 - 14	1.551E-03	0.00	1.503E-03	0.00	1.226E-03	0.00	1.332E-03	0.00	1.086E-03	0.00	2.474E-04	2.520E-04	2.474E-04	2.520E-04
14 - 15	1.236E-03	0.00	1.156E-03	0.00	9.073E-04	0.00	1.000E-03	0.00	8.003E-04	0.00	2.374E-04	2.417E-04	2.374E-04	2.417E-04
15 - 16	9.209E-04	0.00	8.147E-04	0.00	6.606E-04	0.00	6.968E-04	0.00	5.815E-04	0.00	2.244E-04	2.285E-04	2.244E-04	2.285E-04
16 - 17	6.432E-04	0.00	5.859E-04	0.00	4.868E-04	0.00	5.355E-04	0.00	4.252E-04	0.00	2.175E-04	2.215E-04	2.175E-04	2.215E-04
17 - 18	4.635E-04	0.00	4.325E-04	0.00	3.591E-04	0.00	3.944E-04	0.00	3.138E-04	0.00	2.127E-04	2.166E-04	2.127E-04	2.166E-04
18 - 19	3.243E-04	0.00	3.125E-04	0.00	2.582E-04	0.00	2.947E-04	0.00	2.299E-04	0.00	1.923E-04	1.958E-04	1.923E-04	1.958E-04
19 - 20	2.245E-04	0.00	2.315E-04	0.00	1.892E-04	0.00	2.164E-04	0.00	1.672E-04	0.00	1.516E-04	1.544E-04	1.516E-04	1.544E-04
20 - 21	1.595E-04	0.00	1.659E-04	0.00	1.406E-04	0.00	1.594E-04	0.00	1.230E-04	0.00	1.106E-04	1.126E-04	1.106E-04	1.126E-04
21 - 22	1.131E-04	0.00	1.244E-04	0.00	1.018E-04	0.00	1.178E-04	0.00	8.935E-05	0.00	8.161E-05	8.311E-05	8.161E-05	8.311E-05
22 - 23	7.985E-05	0.00	8.733E-05	0.00	7.428E-05	0.00	8.701E-05	0.00	6.519E-05	0.00	6.191E-05	6.304E-05	6.191E-05	6.304E-05
23 - 24	5.605E-05	0.00	6.684E-05	0.00	5.236E-05	0.00	6.501E-05	0.00	4.798E-05	0.00	4.818E-05	4.906E-05	4.818E-05	4.906E-05
24 - 25	4.238E-05	0.00	4.801E-05	0.00	4.123E-05	0.00	4.726E-05	0.00	3.420E-05	0.00	3.932E-05	4.004E-05	3.932E-05	4.004E-05
25 - 30	1.804E-05	0.00	2.075E-05	0.00	1.663E-05	0.00	2.076E-05	0.00	1.450E-05	0.00	2.098E-05	2.137E-05	2.098E-05	2.137E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	4.702E-06	0.00	0.	0.00	5.991E-06	6.101E-06	5.991E-06	6.101E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.577E-06	1.606E-06	1.577E-06	1.606E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.915473 MICROMETERS

FREQUENCY = 2553.970 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.435E-02	0.00	1.462E-02	0.00	1.633E-02	0.00	1.494E-02	0.00	1.768E-02	0.00	1.374E-02	1.400E-02	6.696E-02	6.823E-02
0 - 1	1.310E-02	0.00	1.320E-02	0.00	1.420E-02	0.00	1.344E-02	0.00	1.481E-02	0.00	9.379E-03	9.557E-03	4.222E-02	4.302E-02
1 - 2	1.056E-02	0.00	1.062E-02	0.00	1.129E-02	0.00	1.077E-02	0.00	1.151E-02	0.00	4.093E-03	4.170E-03	1.359E-02	1.384E-02
2 - 3	8.519E-03	0.00	8.577E-03	0.00	8.909E-03	0.00	8.620E-03	0.00	8.990E-03	0.00	1.746E-03	1.779E-03	4.718E-03	4.807E-03
3 - 4	6.872E-03	0.00	6.854E-03	0.00	7.044E-03	0.00	6.929E-03	0.00	7.026E-03	0.00	8.110E-04	8.264E-04	2.051E-03	2.100E-03
4 - 5	5.505E-03	0.00	5.477E-03	0.00	5.597E-03	0.00	5.498E-03	0.00	5.519E-03	0.00	5.050E-04	5.145E-04	7.527E-04	7.670E-04
5 - 6	4.426E-03	0.00	4.407E-03	0.00	4.333E-03	0.00	4.356E-03	0.00	4.351E-03	0.00	3.688E-04	3.758E-04	3.698E-04	3.758E-04
6 - 7	3.508E-03	0.00	3.521E-03	0.00	3.471E-03	0.00	3.431E-03	0.00	3.344E-03	0.00	2.972E-04	3.028E-04	2.972E-04	3.028E-04
7 - 8	2.880E-03	0.00	2.757E-03	0.00	2.656E-03	0.00	2.699E-03	0.00	2.646E-03	0.00	2.907E-04	2.962E-04	2.907E-04	2.962E-04
8 - 9	2.127E-03	0.00	2.183E-03	0.00	2.038E-03	0.00	2.138E-03	0.00	1.968E-03	0.00	2.890E-04	2.944E-04	2.890E-04	2.944E-04
9 - 10	1.725E-03	0.00	1.678E-03	0.00	1.619E-03	0.00	1.630E-03	0.00	1.449E-03	0.00	2.794E-04	2.847E-04	2.796E-04	2.847E-04
10 - 11	1.368E-03	0.00	1.332E-03	0.00	1.158E-03	0.00	1.242E-03	0.00	1.076E-03	0.00	2.672E-04	2.722E-04	2.672E-04	2.722E-04
11 - 12	1.044E-03	0.00	1.022E-03	0.00	8.826E-04	0.00	9.514E-04	0.00	7.890E-04	0.00	2.650E-04	2.700E-04	2.650E-04	2.700E-04
12 - 13	8.304E-04	0.00	7.928E-04	0.00	6.516E-04	0.00	6.703E-04	0.00	5.735E-04	0.00	2.610E-04	2.660E-04	2.610E-04	2.660E-04
13 - 14	6.012E-04	0.00	5.831E-04	0.00	4.718E-04	0.00	5.096E-04	0.00	4.177E-04	0.00	2.481E-04	2.528E-04	2.481E-04	2.528E-04
14 - 15	4.815E-04	0.00	4.453E-04	0.00	3.485E-04	0.00	3.822E-04	0.00	3.073E-04	0.00	2.380E-04	2.425E-04	2.390E-04	2.425E-04
15 - 16	3.613E-04	0.00	3.130E-04	0.00	2.537E-04	0.00	2.657E-04	0.00	2.231E-04	0.00	2.250E-04	2.292E-04	2.250E-04	2.292E-04
16 - 17	2.539E-04	0.00	2.251E-04	0.00	1.866E-04	0.00	2.043E-04	0.00	1.632E-04	0.00	2.181E-04	2.222E-04	2.181E-04	2.222E-04
17 - 18	1.824E-04	0.00	1.661E-04	0.00	1.376E-04	0.00	1.503E-04	0.00	1.203E-04	0.00	2.133E-04	2.173E-04	2.133E-04	2.173E-04
18 - 19	1.267E-04	0.00	1.198E-04	0.00	9.917E-05	0.00	1.120E-04	0.00	8.814E-05	0.00	1.928E-04	1.964E-04	1.928E-04	1.964E-04
19 - 20	8.712E-05	0.00	8.847E-05	0.00	7.252E-05	0.00	8.240E-05	0.00	6.416E-05	0.00	1.520E-04	1.549E-04	1.520E-04	1.549E-04
20 - 21	6.157E-05	0.00	6.343E-05	0.00	5.397E-05	0.00	6.055E-05	0.00	4.717E-05	0.00	1.109E-04	1.130E-04	1.109E-04	1.130E-04
21 - 22	4.343E-05	0.00	4.736E-05	0.00	3.906E-05	0.00	4.481E-05	0.00	3.430E-05	0.00	8.183E-05	8.337E-05	8.193E-05	8.337E-05
22 - 23	3.058E-05	0.00	3.339E-05	0.00	2.838E-05	0.00	3.306E-05	0.00	2.504E-05	0.00	6.207E-05	6.324E-05	6.207E-05	6.324E-05
23 - 24	2.217E-05	0.00	2.539E-05	0.00	2.012E-05	0.00	2.464E-05	0.00	1.838E-05	0.00	4.830E-05	4.922E-05	4.830E-05	4.922E-05
24 - 25	1.617E-05	0.00	1.826E-05	0.00	1.576E-05	0.00	1.797E-05	0.00	1.317E-05	0.00	3.942E-05	4.017E-05	3.942E-05	4.017E-05
25 - 30	6.846E-06	0.00	7.869E-06	0.00	6.366E-06	0.00	7.861E-06	0.00	5.562E-06	0.00	2.104E-05	2.144E-05	2.104E-05	2.144E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.773E-06	0.00	0.	0.00	6.007E-06	6.120E-06	6.007E-06	6.120E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.581E-06	1.611E-06	1.581E-06	1.611E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.890279 MICROMETERS

FREQUENCY = 2570.510 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.074E-02	0.00	5.098E-02	0.00	5.596E-02	0.00	5.161E-02	0.00	6.126E-02	0.00	1.382E-02	1.410E-02	6.734E-02	6.869E-02
0 - 1	4.790E-02	0.00	4.808E-02	0.00	5.263E-02	0.00	4.929E-02	0.00	5.662E-02	0.00	9.432E-03	9.622E-03	4.246E-02	4.331E-02
1 - 2	4.086E-02	0.00	4.118E-02	0.00	4.536E-02	0.00	4.223E-02	0.00	4.745E-02	0.00	4.116E-03	4.199E-03	1.356E-02	1.393E-02
2 - 3	3.474E-02	0.00	3.500E-02	0.00	3.828E-02	0.00	3.613E-02	0.00	3.978E-02	0.00	1.756E-03	1.791E-03	4.744E-03	4.840E-03
3 - 4	2.948E-02	0.00	2.984E-02	0.00	3.227E-02	0.00	3.088E-02	0.00	3.317E-02	0.00	8.156E-04	8.320E-04	2.072E-03	2.114E-03
4 - 5	2.497E-02	0.00	2.514E-02	0.00	2.729E-02	0.00	2.599E-02	0.00	2.768E-02	0.00	5.078E-04	5.180E-04	7.559E-04	7.722E-04
5 - 6	2.115E-02	0.00	2.132E-02	0.00	2.211E-02	0.00	2.156E-02	0.00	2.317E-02	0.00	3.709E-04	3.784E-04	3.709E-04	3.784E-04
6 - 7	1.758E-02	0.00	1.779E-02	0.00	1.883E-02	0.00	1.799E-02	0.00	1.865E-02	0.00	2.988E-04	3.048E-04	2.988E-04	3.048E-04
7 - 8	1.467E-02	0.00	1.457E-02	0.00	1.493E-02	0.00	1.476E-02	0.00	1.561E-02	0.00	2.924E-04	2.983E-04	2.924E-04	2.983E-04
8 - 9	1.203E-02	0.00	1.210E-02	0.00	1.187E-02	0.00	1.225E-02	0.00	1.193E-02	0.00	2.906E-04	2.964E-04	2.906E-04	2.964E-04
9 - 10	9.800E-03	0.00	9.534E-03	0.00	9.928E-03	0.00	9.621E-03	0.00	8.971E-03	0.00	2.810E-04	2.867E-04	2.810E-04	2.867E-04
10 - 11	8.047E-03	0.00	7.941E-03	0.00	7.112E-03	0.00	7.521E-03	0.00	6.790E-03	0.00	2.687E-04	2.741E-04	2.687E-04	2.741E-04
11 - 12	6.350E-03	0.00	6.236E-03	0.00	5.570E-03	0.00	5.925E-03	0.00	5.021E-03	0.00	2.665E-04	2.719E-04	2.655E-04	2.719E-04
12 - 13	5.216E-03	0.00	5.031E-03	0.00	4.156E-03	0.00	4.119E-03	0.00	3.673E-03	0.00	2.625E-04	2.678E-04	2.625E-04	2.678E-04
13 - 14	3.883E-03	0.00	3.705E-03	0.00	3.019E-03	0.00	3.179E-03	0.00	2.683E-03	0.00	2.495E-04	2.545E-04	2.495E-04	2.545E-04
14 - 15	3.201E-03	0.00	2.874E-03	0.00	2.243E-03	0.00	2.394E-03	0.00	1.983E-03	0.00	2.442E-04	2.393E-04	2.442E-04	2.442E-04
15 - 16	2.467E-03	0.00	2.027E-03	0.00	1.637E-03	0.00	1.669E-03	0.00	1.444E-03	0.00	2.262E-04	2.308E-04	2.252E-04	2.308E-04
16 - 17	1.766E-03	0.00	1.461E-03	0.00	1.212E-03	0.00	1.285E-03	0.00	1.058E-03	0.00	2.193E-04	2.237E-04	2.193E-04	2.237E-04
17 - 18	1.267E-03	0.00	1.081E-03	0.00	8.964E-04	0.00	9.465E-04	0.00	7.847E-04	0.00	2.145E-04	2.188E-04	2.145E-04	2.188E-04
18 - 19	8.696E-04	0.00	7.770E-04	0.00	6.459E-04	0.00	7.088E-04	0.00	5.769E-04	0.00	1.939E-04	1.978E-04	1.939E-04	1.978E-04
19 - 20	5.903E-04	0.00	5.754E-04	0.00	4.742E-04	0.00	5.189E-04	0.00	4.205E-04	0.00	1.528E-04	1.559E-04	1.528E-04	1.559E-04
20 - 21	4.115E-04	0.00	4.091E-04	0.00	3.527E-04	0.00	3.835E-04	0.00	3.107E-04	0.00	1.115E-04	1.138E-04	1.115E-04	1.139E-04
21 - 22	2.866E-04	0.00	3.067E-04	0.00	2.562E-04	0.00	2.831E-04	0.00	2.261E-04	0.00	8.229E-05	8.394E-05	8.229E-05	8.394E-05
22 - 23	1.996E-04	0.00	2.139E-04	0.00	1.861E-04	0.00	2.088E-04	0.00	1.655E-04	0.00	6.242E-05	6.367E-05	6.242E-05	6.367E-05
23 - 24	1.439E-04	0.00	1.619E-04	0.00	1.312E-04	0.00	1.562E-04	0.00	1.221E-04	0.00	4.858E-05	4.955E-05	4.858E-05	4.955E-05
24 - 25	1.040E-04	0.00	1.166E-04	0.00	1.038E-04	0.00	1.131E-04	0.00	8.707E-05	0.00	3.965E-05	4.044E-05	3.955E-05	4.044E-05
25 - 30	4.313E-05	0.00	4.905E-05	0.00	4.152E-05	0.00	4.864E-05	0.00	3.666E-05	0.00	2.116E-05	2.158E-05	2.116E-05	2.159E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	1.062E-05	0.00	0.	0.00	6.041E-06	6.162E-06	6.041E-06	6.162E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.590E-06	1.622E-06	1.590E-06	1.622E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.875729 MICROMETERS

FREQUENCY = 2580.160 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.818E-02	0.00	2.808E-02	0.00	2.953E-02	0.00	2.804E-02	0.00	3.109E-02	0.00	1.386E-02	1.415E-02	6.755E-02	6.897E-02
0 - 1	2.596E-02	0.00	2.581E-02	0.00	2.684E-02	0.00	2.598E-02	0.00	2.782E-02	0.00	9.463E-03	9.660E-03	4.250E-02	4.348E-02
1 - 2	2.111E-02	0.00	2.105E-02	0.00	2.189E-02	0.00	2.109E-02	0.00	2.218E-02	0.00	4.129E-03	4.215E-03	1.370E-02	1.399E-02
2 - 3	1.712E-02	0.00	1.704E-02	0.00	1.757E-02	0.00	1.713E-02	0.00	1.765E-02	0.00	1.762E-03	1.799E-03	4.760E-03	4.859E-03
3 - 4	1.386E-02	0.00	1.382E-02	0.00	1.408E-02	0.00	1.394E-02	0.00	1.400E-02	0.00	8.182E-04	8.353E-04	2.079E-03	2.123E-03
4 - 5	1.119E-02	0.00	1.112E-02	0.00	1.132E-02	0.00	1.120E-02	0.00	1.109E-02	0.00	5.095E-04	5.201E-04	7.594E-04	7.752E-04
5 - 6	9.066E-03	0.00	9.027E-03	0.00	8.762E-03	0.00	8.877E-03	0.00	8.803E-03	0.00	3.721E-04	3.799E-04	3.721E-04	3.799E-04
6 - 7	7.223E-03	0.00	7.234E-03	0.00	7.118E-03	0.00	7.063E-03	0.00	6.746E-03	0.00	2.998E-04	3.060E-04	2.998E-04	3.060E-04
7 - 8	5.808E-03	0.00	5.689E-03	0.00	5.417E-03	0.00	5.548E-03	0.00	5.370E-03	0.00	2.933E-04	2.994E-04	2.933E-04	2.994E-04
8 - 9	4.527E-03	0.00	4.538E-03	0.00	4.140E-03	0.00	4.404E-03	0.00	3.955E-03	0.00	2.915E-04	2.976E-04	2.915E-04	2.976E-04
9 - 10	3.574E-03	0.00	3.450E-03	0.00	3.318E-03	0.00	3.322E-03	0.00	2.917E-03	0.00	2.819E-04	2.878E-04	2.819E-04	2.878E-04
10 - 11	2.822E-03	0.00	2.761E-03	0.00	2.329E-03	0.00	2.531E-03	0.00	2.185E-03	0.00	2.695E-04	2.752E-04	2.695E-04	2.752E-04
11 - 12	2.146E-03	0.00	2.092E-03	0.00	1.801E-03	0.00	1.972E-03	0.00	1.606E-03	0.00	2.674E-04	2.729E-04	2.674E-04	2.729E-04
12 - 13	1.697E-03	0.00	1.623E-03	0.00	1.393E-03	0.00	1.369E-03	0.00	1.169E-03	0.00	2.633E-04	2.688E-04	2.633E-04	2.688E-04
13 - 14	1.214E-03	0.00	1.175E-03	0.00	9.628E-04	0.00	1.050E-03	0.00	8.512E-04	0.00	2.503E-04	2.555E-04	2.503E-04	2.555E-04
14 - 15	9.624E-04	0.00	9.064E-04	0.00	7.113E-04	0.00	7.887E-04	0.00	6.273E-04	0.00	2.401E-04	2.451E-04	2.401E-04	2.451E-04
15 - 16	7.122E-04	0.00	6.376E-04	0.00	5.171E-04	0.00	5.486E-04	0.00	4.553E-04	0.00	2.270E-04	2.317E-04	2.270E-04	2.317E-04
16 - 17	4.951E-04	0.00	4.586E-04	0.00	3.808E-04	0.00	4.217E-04	0.00	3.324E-04	0.00	2.200E-04	2.246E-04	2.200E-04	2.246E-04
17 - 18	3.569E-04	0.00	3.388E-04	0.00	2.807E-04	0.00	3.103E-04	0.00	2.453E-04	0.00	2.152E-04	2.196E-04	2.152E-04	2.196E-04
18 - 19	2.505E-04	0.00	2.441E-04	0.00	2.017E-04	0.00	2.320E-04	0.00	1.797E-04	0.00	1.945E-04	1.985E-04	1.945E-04	1.985E-04
19 - 20	1.740E-04	0.00	1.814E-04	0.00	1.477E-04	0.00	1.699E-04	0.00	1.305E-04	0.00	1.533E-04	1.565E-04	1.533E-04	1.565E-04
20 - 21	1.240E-04	0.00	1.297E-04	0.00	1.098E-04	0.00	1.254E-04	0.00	9.603E-05	0.00	1.119E-04	1.142E-04	1.119E-04	1.142E-04
21 - 22	8.819E-05	0.00	9.753E-05	0.00	7.973E-05	0.00	9.259E-05	0.00	6.967E-05	0.00	8.255E-05	8.427E-05	8.255E-05	8.427E-05
22 - 23	6.239E-05	0.00	6.860E-05	0.00	5.789E-05	0.00	6.828E-05	0.00	5.083E-05	0.00	6.262E-05	6.392E-05	6.262E-05	6.392E-05
23 - 24	4.543E-05	0.00	5.230E-05	0.00	4.086E-05	0.00	5.114E-05	0.00	3.735E-05	0.00	4.873E-05	4.975E-05	4.873E-05	4.975E-05
24 - 25	3.318E-05	0.00	3.780E-05	0.00	3.226E-05	0.00	3.730E-05	0.00	2.658E-05	0.00	3.978E-05	4.060E-05	3.978E-05	4.060E-05
25 - 30	1.419E-05	0.00	1.634E-05	0.00	1.299E-05	0.00	1.638E-05	0.00	1.131E-05	0.00	2.123E-05	2.167E-05	2.123E-05	2.167E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	3.727E-06	0.00	0.	0.00	6.060E-06	6.187E-06	6.060E-06	6.187E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.595E-06	1.628E-06	1.595E-06	1.628E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.854708 MICROMETERS

FREQUENCY = 2594.230 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.183E-02	0.00	9.654E-03	0.00	5.572E-03	0.00	7.612E-03	0.00	4.804E-03	0.00	1.393E-02	1.423E-02	6.798E-02	6.936E-02
0 - 1	9.674E-03	0.00	7.908E-03	0.00	4.569E-03	0.00	6.255E-03	0.00	3.840E-03	0.00	9.507E-03	9.715E-03	4.280E-02	4.373E-02
1 - 2	6.534E-03	0.00	5.293E-03	0.00	3.386E-03	0.00	4.366E-03	0.00	2.960E-03	0.00	4.149E-03	4.239E-03	1.377E-02	1.407E-02
2 - 3	4.223E-03	0.00	3.535E-03	0.00	2.506E-03	0.00	3.083E-03	0.00	2.225E-03	0.00	1.770E-03	1.809E-03	4.782E-03	4.887E-03
3 - 4	2.625E-03	0.00	2.369E-03	0.00	1.830E-03	0.00	2.195E-03	0.00	1.652E-03	0.00	8.221E-04	8.401E-04	2.089E-03	2.135E-03
4 - 5	1.783E-03	0.00	1.650E-03	0.00	1.338E-03	0.00	1.560E-03	0.00	1.214E-03	0.00	5.119E-04	5.231E-04	7.630E-04	7.797E-04
5 - 6	1.286E-03	0.00	1.194E-03	0.00	9.795E-04	0.00	1.121E-03	0.00	8.903E-04	0.00	3.739E-04	3.821E-04	3.739E-04	3.821E-04
6 - 7	9.208E-04	0.00	8.865E-04	0.00	7.237E-04	0.00	8.000E-04	0.00	6.492E-04	0.00	3.012E-04	3.078E-04	3.012E-04	3.078E-04
7 - 8	7.130E-04	0.00	6.453E-04	0.00	5.289E-04	0.00	5.836E-04	0.00	4.751E-04	0.00	2.947E-04	3.012E-04	2.947E-04	3.012E-04
8 - 9	4.546E-04	0.00	4.746E-04	0.00	3.874E-04	0.00	4.268E-04	0.00	3.441E-04	0.00	2.929E-04	2.993E-04	2.929E-04	2.993E-04
9 - 10	3.597E-04	0.00	3.491E-04	0.00	2.848E-04	0.00	3.098E-04	0.00	2.497E-04	0.00	2.832E-04	2.894E-04	2.832E-04	2.894E-04
10 - 11	2.681E-04	0.00	2.561E-04	0.00	2.059E-04	0.00	2.283E-04	0.00	1.828E-04	0.00	2.708E-04	2.767E-04	2.708E-04	2.767E-04
11 - 12	1.932E-04	0.00	1.879E-04	0.00	1.521E-04	0.00	1.695E-04	0.00	1.340E-04	0.00	2.686E-04	2.745E-04	2.686E-04	2.745E-04
12 - 13	1.451E-04	0.00	1.357E-04	0.00	1.113E-04	0.00	1.235E-04	0.00	9.736E-05	0.00	2.646E-04	2.704E-04	2.646E-04	2.704E-04
13 - 14	9.948E-05	0.00	1.001E-04	0.00	8.078E-05	0.00	9.236E-05	0.00	7.113E-05	0.00	2.515E-04	2.570E-04	2.515E-04	2.570E-04
14 - 15	7.508E-05	0.00	7.493E-05	0.00	5.938E-05	0.00	6.928E-05	0.00	5.221E-05	0.00	2.413E-04	2.465E-04	2.413E-04	2.465E-04
15 - 16	5.312E-05	0.00	5.271E-05	0.00	4.322E-05	0.00	4.821E-05	0.00	3.787E-05	0.00	2.281E-04	2.330E-04	2.281E-04	2.330E-04
16 - 17	3.578E-05	0.00	3.793E-05	0.00	3.149E-05	0.00	3.713E-05	0.00	2.766E-05	0.00	2.210E-04	2.259E-04	2.210E-04	2.259E-04
17 - 18	2.598E-05	0.00	2.798E-05	0.00	2.314E-05	0.00	2.730E-05	0.00	2.019E-05	0.00	2.162E-04	2.209E-04	2.162E-04	2.209E-04
18 - 19	1.870E-05	0.00	2.034E-05	0.00	1.671E-05	0.00	2.025E-05	0.00	1.471E-05	0.00	1.954E-04	1.997E-04	1.954E-04	1.997E-04
19 - 20	1.333E-05	0.00	1.501E-05	0.00	1.214E-05	0.00	1.503E-05	0.00	1.068E-05	0.00	1.541E-04	1.574E-04	1.541E-04	1.574E-04
20 - 21	9.775E-06	0.00	1.097E-05	0.00	9.005E-06	0.00	1.095E-05	0.00	7.781E-06	0.00	1.124E-04	1.149E-04	1.124E-04	1.149E-04
21 - 22	7.130E-06	0.00	8.153E-06	0.00	6.518E-06	0.00	8.147E-06	0.00	5.650E-06	0.00	8.294E-05	8.476E-05	8.294E-05	8.476E-05
22 - 23	5.155E-06	0.00	5.884E-06	0.00	4.739E-06	0.00	6.019E-06	0.00	4.099E-06	0.00	6.292E-05	6.429E-05	6.292E-05	6.429E-05
23 - 24	3.792E-06	0.00	4.521E-06	0.00	3.401E-06	0.00	4.466E-06	0.00	2.980E-06	0.00	4.896E-05	5.004E-05	4.896E-05	5.004E-05
24 - 25	2.827E-06	0.00	3.258E-06	0.00	2.614E-06	0.00	3.312E-06	0.00	2.154E-06	0.00	3.996E-05	4.084E-05	3.996E-05	4.084E-05
25 - 30	1.259E-06	0.00	1.480E-06	0.00	1.079E-06	0.00	1.504E-06	0.00	0.	0.00	2.133E-05	2.179E-05	2.133E-05	2.179E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.089E-06	6.222E-06	6.089E-06	6.222E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.602E-06	1.637E-06	1.602E-06	1.637E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.837490 MICROMETERS

FREQUENCY = 2605.870 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.114E-02	0.00	2.337E-02	0.00	7.762E-03	0.00	1.590E-02	0.00	4.554E-03	0.00	1.398E-02	1.430E-02	6.814E-02	6.959E-02
0 - 1	2.468E-02	0.00	1.838E-02	0.00	6.240E-03	0.00	1.248E-02	0.00	3.775E-03	0.00	9.545E-03	9.761E-03	4.296E-02	4.394E-02
1 - 2	1.567E-02	0.00	1.107E-02	0.00	4.257E-03	0.00	7.872E-03	0.00	2.927E-03	0.00	4.165E-03	4.259E-03	1.392E-02	1.413E-02
2 - 3	8.904E-03	0.00	6.326E-03	0.00	2.887E-03	0.00	4.977E-03	0.00	2.114E-03	0.00	1.777E-03	1.817E-03	4.801E-03	4.910E-03
3 - 4	4.343E-03	0.00	3.534E-03	0.00	1.862E-03	0.00	3.083E-03	0.00	1.468E-03	0.00	8.253E-04	8.440E-04	2.097E-03	2.145E-03
4 - 5	2.435E-03	0.00	2.034E-03	0.00	1.203E-03	0.00	1.894E-03	0.00	9.887E-04	0.00	5.139E-04	5.255E-04	7.650E-04	7.834E-04
5 - 6	1.534E-03	0.00	1.248E-03	0.00	8.106E-04	0.00	1.168E-03	0.00	6.769E-04	0.00	3.753E-04	3.839E-04	3.753E-04	3.839E-04
6 - 7	9.405E-04	0.00	8.286E-04	0.00	5.510E-04	0.00	7.278E-04	0.00	4.810E-04	0.00	3.024E-04	3.093E-04	3.024E-04	3.093E-04
7 - 8	6.326E-04	0.00	5.531E-04	0.00	3.839E-04	0.00	4.759E-04	0.00	3.427E-04	0.00	2.959E-04	3.026E-04	2.959E-04	3.026E-04
8 - 9	3.674E-04	0.00	3.776E-04	0.00	2.776E-04	0.00	3.192E-04	0.00	2.488E-04	0.00	2.941E-04	3.007E-04	2.941E-04	3.007E-04
9 - 10	2.692E-04	0.00	2.667E-04	0.00	2.037E-04	0.00	2.235E-04	0.00	1.812E-04	0.00	2.843E-04	2.908E-04	2.843E-04	2.908E-04
10 - 11	1.927E-04	0.00	1.867E-04	0.00	1.492E-04	0.00	1.637E-04	0.00	1.320E-04	0.00	2.719E-04	2.780E-04	2.719E-04	2.780E-04
11 - 12	1.373E-04	0.00	1.347E-04	0.00	1.097E-04	0.00	1.198E-04	0.00	9.661E-05	0.00	2.697E-04	2.758E-04	2.697E-04	2.758E-04
12 - 13	1.038E-04	0.00	9.735E-05	0.00	8.063E-05	0.00	8.774E-05	0.00	7.015E-05	0.00	2.656E-04	2.716E-04	2.656E-04	2.716E-04
13 - 14	7.241E-05	0.00	7.255E-05	0.00	5.799E-05	0.00	6.507E-05	0.00	5.124E-05	0.00	2.525E-04	2.582E-04	2.525E-04	2.582E-04
14 - 15	5.565E-05	0.00	5.706E-05	0.00	4.270E-05	0.00	4.875E-05	0.00	3.756E-05	0.00	2.422E-04	2.477E-04	2.422E-04	2.477E-04
15 - 16	4.019E-05	0.00	3.806E-05	0.00	3.115E-05	0.00	3.396E-05	0.00	2.727E-05	0.00	2.289E-04	2.341E-04	2.289E-04	2.341E-04
16 - 17	2.747E-05	0.00	2.737E-05	0.00	2.272E-05	0.00	2.613E-05	0.00	1.998E-05	0.00	2.219E-04	2.269E-04	2.219E-04	2.269E-04
17 - 18	1.989E-05	0.00	2.017E-05	0.00	1.672E-05	0.00	1.923E-05	0.00	1.459E-05	0.00	2.170E-04	2.219E-04	2.170E-04	2.219E-04
18 - 19	1.413E-05	0.00	1.469E-05	0.00	1.209E-05	0.00	1.425E-05	0.00	1.065E-05	0.00	1.962E-04	2.006E-04	1.962E-04	2.006E-04
19 - 20	9.956E-06	0.00	1.078E-05	0.00	8.797E-06	0.00	1.061E-05	0.00	7.758E-06	0.00	1.547E-04	1.582E-04	1.547E-04	1.582E-04
20 - 21	7.214E-06	0.00	7.886E-06	0.00	6.528E-06	0.00	7.716E-06	0.00	5.659E-06	0.00	1.128E-04	1.154E-04	1.128E-04	1.154E-04
21 - 22	5.204E-06	0.00	5.831E-06	0.00	4.713E-06	0.00	5.750E-06	0.00	4.123E-06	0.00	8.327E-05	8.516E-05	8.327E-05	8.516E-05
22 - 23	3.734E-06	0.00	4.195E-06	0.00	3.448E-06	0.00	4.259E-06	0.00	2.998E-06	0.00	6.316E-05	6.459E-05	6.316E-05	6.459E-05
23 - 24	2.734E-06	0.00	3.227E-06	0.00	2.476E-06	0.00	3.151E-06	0.00	2.185E-06	0.00	4.916E-05	5.027E-05	4.916E-05	5.027E-05
24 - 25	2.033E-06	0.00	2.311E-06	0.00	1.899E-06	0.00	2.328E-06	0.00	1.590E-06	0.00	4.012E-05	4.103E-05	4.012E-05	4.103E-05
25 - 30	0.	0.00	1.040E-06	0.00	0.	0.00	1.049E-06	0.00	0.	0.00	2.141E-05	2.190E-05	2.141E-05	2.190E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.113E-06	6.252E-06	6.113E-06	6.252E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.609E-06	1.645E-06	1.609E-06	1.645E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.829804 MICROMETERS

FREQUENCY = 2611.100 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	1.158E-02	0.00	8.700E-03	0.00	3.769E-03	0.00	6.188E-03	0.00	2.963E-03	0.00	1.401E-02	1.433E-02	6.826E-02	6.984E-02
0 - 1	9.302E-03	0.00	7.015E-03	0.00	3.056E-03	0.00	4.988E-03	0.00	2.339E-03	0.00	9.561E-03	9.782E-03	4.304E-02	4.403E-02
1 - 2	6.080E-03	0.00	4.494E-03	0.00	2.231E-03	0.00	3.364E-03	0.00	1.819E-03	0.00	4.172E-03	4.268E-03	1.384E-02	1.416E-02
2 - 3	3.684E-03	0.00	2.798E-03	0.00	1.672E-03	0.00	2.286E-03	0.00	1.364E-03	0.00	1.780E-03	1.821E-03	4.809E-03	4.920E-03
3 - 4	2.028E-03	0.00	1.728E-03	0.00	1.148E-03	0.00	1.549E-03	0.00	1.001E-03	0.00	8.267E-04	8.458E-04	2.101E-03	2.149E-03
4 - 5	1.264E-03	0.00	1.117E-03	0.00	8.141E-04	0.00	1.047E-03	0.00	7.244E-04	0.00	5.148E-04	5.267E-04	7.673E-04	7.850E-04
5 - 6	8.649E-04	0.00	7.629E-04	0.00	5.868E-04	0.00	7.182E-04	0.00	5.250E-04	0.00	3.760E-04	3.847E-04	3.760E-04	3.847E-04
6 - 7	5.869E-04	0.00	5.489E-04	0.00	4.250E-04	0.00	4.927E-04	0.00	3.837E-04	0.00	3.029E-04	3.099E-04	3.029E-04	3.099E-04
7 - 8	4.406E-04	0.00	3.902E-04	0.00	3.096E-04	0.00	3.505E-04	0.00	2.795E-04	0.00	2.964E-04	3.032E-04	2.954E-04	3.032E-04
8 - 9	2.671E-04	0.00	2.818E-04	0.00	2.275E-04	0.00	2.509E-04	0.00	2.043E-04	0.00	2.946E-04	3.014E-04	2.946E-04	3.014E-04
9 - 10	2.109E-04	0.00	2.069E-04	0.00	1.669E-04	0.00	1.824E-04	0.00	1.486E-04	0.00	2.848E-04	2.914E-04	2.848E-04	2.914E-04
10 - 11	1.565E-04	0.00	1.500E-04	0.00	1.225E-04	0.00	1.344E-04	0.00	1.083E-04	0.00	2.723E-04	2.786E-04	2.723E-04	2.786E-04
11 - 12	1.130E-04	0.00	1.105E-04	0.00	8.993E-05	0.00	9.876E-05	0.00	7.935E-05	0.00	2.702E-04	2.764E-04	2.702E-04	2.764E-04
12 - 13	8.551E-05	0.00	8.000E-05	0.00	6.574E-05	0.00	7.260E-05	0.00	5.765E-05	0.00	2.661E-04	2.722E-04	2.661E-04	2.722E-04
13 - 14	5.932E-05	0.00	5.968E-05	0.00	4.778E-05	0.00	5.395E-05	0.00	4.214E-05	0.00	2.529E-04	2.587E-04	2.529E-04	2.587E-04
14 - 15	4.523E-05	0.00	4.444E-05	0.00	3.514E-05	0.00	4.047E-05	0.00	3.090E-05	0.00	2.426E-04	2.482E-04	2.426E-04	2.482E-04
15 - 16	3.234E-05	0.00	3.126E-05	0.00	2.562E-05	0.00	2.817E-05	0.00	2.243E-05	0.00	2.293E-04	2.346E-04	2.293E-04	2.346E-04
16 - 17	2.194E-05	0.00	2.250E-05	0.00	1.866E-05	0.00	2.170E-05	0.00	1.642E-05	0.00	2.223E-04	2.274E-04	2.223E-04	2.274E-04
17 - 18	1.591E-05	0.00	1.660E-05	0.00	1.373E-05	0.00	1.596E-05	0.00	1.198E-05	0.00	2.174E-04	2.224E-04	2.174E-04	2.224E-04
18 - 19	1.137E-05	0.00	1.207E-05	0.00	9.933E-06	0.00	1.182E-05	0.00	8.736E-06	0.00	1.965E-04	2.010E-04	1.965E-04	2.010E-04
19 - 20	8.059E-06	0.00	8.870E-06	0.00	7.214E-06	0.00	8.796E-06	0.00	6.358E-06	0.00	1.549E-04	1.585E-04	1.549E-04	1.585E-04
20 - 21	5.871E-06	0.00	6.489E-06	0.00	5.350E-06	0.00	6.394E-06	0.00	4.632E-06	0.00	1.130E-04	1.156E-04	1.130E-04	1.156E-04
21 - 22	4.253E-06	0.00	4.800E-06	0.00	3.873E-06	0.00	4.765E-06	0.00	3.370E-06	0.00	8.341E-05	8.534E-05	8.341E-05	8.534E-05
22 - 23	3.062E-06	0.00	3.468E-06	0.00	2.815E-06	0.00	3.522E-06	0.00	2.448E-06	0.00	6.327E-05	6.473E-05	6.327E-05	6.473E-05
23 - 24	2.244E-06	0.00	2.656E-06	0.00	2.029E-06	0.00	2.606E-06	0.00	1.780E-06	0.00	4.924E-05	5.038E-05	4.924E-05	5.038E-05
24 - 25	1.670E-06	0.00	1.909E-06	0.00	1.552E-06	0.00	1.932E-06	0.00	1.293E-06	0.00	4.019E-05	4.112E-05	4.019E-05	4.112E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.145E-05	2.194E-05	2.145E-05	2.194E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.123E-06	6.265E-06	6.123E-06	6.265E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.612E-06	1.649E-06	1.612E-06	1.649E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.820571 MICROMETERS

FREQUENCY = 2617.410 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.902E-03	0.00	4.165E-03	0.00	2.761E-03	0.00	3.450E-03	0.00	2.535E-03	0.00	1.404E-02	1.437E-02	6.840E-02	7.001E-02
0 - 1	4.069E-03	0.00	3.443E-03	0.00	2.247E-03	0.00	2.851E-03	0.00	1.978E-03	0.00	9.581E-03	9.807E-03	4.313E-02	4.414E-02
1 - 2	2.841E-03	0.00	2.374E-03	0.00	1.687E-03	0.00	2.050E-03	0.00	1.530E-03	0.00	4.181E-03	4.279E-03	1.397E-02	1.420E-02
2 - 3	1.904E-03	0.00	1.648E-03	0.00	1.270E-03	0.00	1.486E-03	0.00	1.164E-03	0.00	1.784E-03	1.826E-03	4.819E-03	4.933E-03
3 - 4	1.238E-03	0.00	1.141E-03	0.00	9.447E-04	0.00	1.086E-03	0.00	8.768E-04	0.00	8.285E-04	8.480E-04	2.105E-03	2.155E-03
4 - 5	8.721E-04	0.00	8.198E-04	0.00	7.052E-04	0.00	7.886E-04	0.00	6.581E-04	0.00	5.159E-04	5.280E-04	7.689E-04	7.870E-04
5 - 6	6.462E-04	0.00	6.085E-04	0.00	5.288E-04	0.00	5.863E-04	0.00	4.927E-04	0.00	3.768E-04	3.856E-04	3.768E-04	3.856E-04
6 - 7	4.746E-04	0.00	4.610E-04	0.00	3.969E-04	0.00	4.255E-04	0.00	3.687E-04	0.00	3.036E-04	3.107E-04	3.036E-04	3.107E-04
7 - 8	3.800E-04	0.00	3.445E-04	0.00	2.961E-04	0.00	3.185E-04	0.00	2.745E-04	0.00	2.970E-04	3.040E-04	2.970E-04	3.040E-04
8 - 9	2.433E-04	0.00	2.566E-04	0.00	2.216E-04	0.00	2.392E-04	0.00	2.033E-04	0.00	2.952E-04	3.021E-04	2.952E-04	3.021E-04
9 - 10	1.982E-04	0.00	1.944E-04	0.00	1.660E-04	0.00	1.773E-04	0.00	1.486E-04	0.00	2.854E-04	2.922E-04	2.854E-04	2.922E-04
10 - 11	1.512E-04	0.00	1.446E-04	0.00	1.221E-04	0.00	1.326E-04	0.00	1.085E-04	0.00	2.729E-04	2.793E-04	2.729E-04	2.793E-04
11 - 12	1.112E-04	0.00	1.088E-04	0.00	8.975E-05	0.00	9.751E-05	0.00	7.956E-05	0.00	2.707E-04	2.771E-04	2.707E-04	2.771E-04
12 - 13	8.528E-05	0.00	8.010E-05	0.00	6.580E-05	0.00	7.191E-05	0.00	5.786E-05	0.00	2.666E-04	2.729E-04	2.666E-04	2.729E-04
13 - 14	5.994E-05	0.00	5.994E-05	0.00	4.787E-05	0.00	5.358E-05	0.00	4.232E-05	0.00	2.534E-04	2.594E-04	2.534E-04	2.594E-04
14 - 15	4.627E-05	0.00	4.474E-05	0.00	3.531E-05	0.00	4.016E-05	0.00	3.106E-05	0.00	2.431E-04	2.489E-04	2.431E-04	2.489E-04
15 - 16	3.354E-05	0.00	3.152E-05	0.00	2.576E-05	0.00	2.799E-05	0.00	2.256E-05	0.00	2.298E-04	2.352E-04	2.298E-04	2.352E-04
16 - 17	2.298E-05	0.00	2.265E-05	0.00	1.881E-05	0.00	2.152E-05	0.00	1.653E-05	0.00	2.228E-04	2.280E-04	2.228E-04	2.280E-04
17 - 18	1.663E-05	0.00	1.668E-05	0.00	1.384E-05	0.00	1.584E-05	0.00	1.208E-05	0.00	2.179E-04	2.230E-04	2.179E-04	2.230E-04
18 - 19	1.178E-05	0.00	1.216E-05	0.00	1.000E-05	0.00	1.174E-05	0.00	8.816E-06	0.00	1.969E-04	2.016E-04	1.959E-04	2.016E-04
19 - 20	8.285E-06	0.00	8.916E-06	0.00	7.281E-06	0.00	8.740E-06	0.00	6.421E-06	0.00	1.553E-04	1.589E-04	1.553E-04	1.589E-04
20 - 21	5.987E-06	0.00	6.515E-06	0.00	5.402E-06	0.00	6.355E-06	0.00	4.682E-06	0.00	1.133E-04	1.159E-04	1.133E-04	1.159E-04
21 - 22	4.306E-06	0.00	4.813E-06	0.00	3.888E-06	0.00	4.729E-06	0.00	3.409E-06	0.00	8.359E-05	8.555E-05	8.359E-05	8.555E-05
22 - 23	3.082E-06	0.00	3.448E-06	0.00	2.852E-06	0.00	3.503E-06	0.00	2.477E-06	0.00	6.340E-05	6.490E-05	6.340E-05	6.490E-05
23 - 24	2.251E-06	0.00	2.658E-06	0.00	2.039E-06	0.00	2.588E-06	0.00	1.803E-06	0.00	4.934E-05	5.051E-05	4.934E-05	5.051E-05
24 - 25	1.669E-06	0.00	1.893E-06	0.00	1.563E-06	0.00	1.903E-06	0.00	1.310E-06	0.00	4.027E-05	4.122E-05	4.027E-05	4.122E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.149E-05	2.200E-05	2.149E-05	2.200E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.136E-06	6.281E-06	6.136E-06	6.281E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.615E-06	1.653E-06	1.615E-06	1.653E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.800706 MICROMETERS

FREQUENCY = 2631.090 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$		
0	9.500E-03	0.00	7.276E-03	0.00	3.477E-03	0.00	5.324E-03	0.00	2.931E-03	0.00	1.410E-02	1.445E-02	6.872E-02	7.040E-02		
0 - 1	7.688E-03	0.00	5.944E-03	0.00	2.961E-03	0.00	4.400E-03	0.00	2.484E-03	0.00	9.625E-03	9.861E-03	4.333E-02	4.439E-02		
1 - 2	5.169E-03	0.00	3.981E-03	0.00	2.339E-03	0.00	3.151E-03	0.00	2.098E-03	0.00	4.200E-03	4.303E-03	1.394E-02	1.428E-02		
2 - 3	3.344E-03	0.00	2.705E-03	0.00	1.923E-03	0.00	2.336E-03	0.00	1.771E-03	0.00	1.792E-03	1.836E-03	4.841E-03	4.960E-03		
3 - 4	2.130E-03	0.00	1.926E-03	0.00	1.579E-03	0.00	1.837E-03	0.00	1.519E-03	0.00	8.323E-04	8.526E-04	2.115E-03	2.167E-03		
4 - 5	1.585E-03	0.00	1.488E-03	0.00	1.358E-03	0.00	1.458E-03	0.00	1.340E-03	0.00	5.182E-04	5.309E-04	7.724E-04	7.914E-04		
5 - 6	1.316E-03	0.00	1.264E-03	0.00	1.202E-03	0.00	1.292E-03	0.00	1.212E-03	0.00	3.785E-04	3.879E-04	3.785E-04	3.879E-04		
6 - 7	1.123E-03	0.00	1.098E-03	0.00	1.116E-03	0.00	1.089E-03	0.00	1.127E-03	0.00	3.049E-04	3.124E-04	3.049E-04	3.124E-04		
7 - 8	1.034E-03	0.00	1.038E-03	0.00	1.009E-03	0.00	1.003E-03	0.00	1.058E-03	0.00	2.984E-04	3.057E-04	2.984E-04	3.057E-04		
8 - 9	9.334E-04	0.00	9.189E-04	0.00	9.502E-04	0.00	9.828E-04	0.00	9.920E-04	0.00	2.965E-04	3.038E-04	2.965E-04	3.038E-04		
9 - 10	8.694E-04	0.00	8.845E-04	0.00	9.392E-04	0.00	8.814E-04	0.00	9.110E-04	0.00	2.867E-04	2.938E-04	2.867E-04	2.938E-04		
10 - 11	8.369E-04	0.00	8.235E-04	0.00	8.417E-04	0.00	8.409E-04	0.00	8.226E-04	0.00	2.742E-04	2.809E-04	2.742E-04	2.809E-04		
11 - 12	7.752E-04	0.00	7.794E-04	0.00	7.614E-04	0.00	7.516E-04	0.00	7.369E-04	0.00	2.720E-04	2.786E-04	2.720E-04	2.786E-04		
12 - 13	7.479E-04	0.00	7.301E-04	0.00	6.778E-04	0.00	6.711E-04	0.00	6.447E-04	0.00	2.678E-04	2.744E-04	2.678E-04	2.744E-04		
13 - 14	6.584E-04	0.00	6.545E-04	0.00	5.819E-04	0.00	5.965E-04	0.00	5.557E-04	0.00	2.546E-04	2.608E-04	2.546E-04	2.608E-04		
14 - 15	6.288E-04	0.00	5.857E-04	0.00	5.055E-04	0.00	5.170E-04	0.00	4.708E-04	0.00	2.442E-04	2.502E-04	2.442E-04	2.502E-04		
15 - 16	5.599E-04	0.00	4.821E-04	0.00	4.208E-04	0.00	4.139E-04	0.00	3.865E-04	0.00	2.309E-04	2.365E-04	2.309E-04	2.365E-04		
16 - 17	4.553E-04	0.00	3.873E-04	0.00	3.464E-04	0.00	3.502E-04	0.00	3.148E-04	0.00	2.239E-04	2.293E-04	2.239E-04	2.293E-04		
17 - 18	3.672E-04	0.00	3.124E-04	0.00	2.790E-04	0.00	2.847E-04	0.00	2.505E-04	0.00	2.188E-04	2.242E-04	2.188E-04	2.242E-04		
18 - 19	2.767E-04	0.00	2.513E-04	0.00	2.148E-04	0.00	2.277E-04	0.00	1.962E-04	0.00	1.979E-04	2.027E-04	1.979E-04	2.027E-04		
19 - 20	2.022E-04	0.00	1.941E-04	0.00	1.673E-04	0.00	1.803E-04	0.00	1.508E-04	0.00	1.560E-04	1.598E-04	1.550E-04	1.598E-04		
20 - 21	1.485E-04	0.00	1.483E-04	0.00	1.299E-04	0.00	1.377E-04	0.00	1.149E-04	0.00	1.138E-04	1.166E-04	1.138E-04	1.166E-04		
21 - 22	1.074E-04	0.00	1.132E-04	0.00	9.343E-05	0.00	1.053E-04	0.00	8.662E-05	0.00	8.397E-05	8.603E-05	8.397E-05	8.603E-05		
22 - 23	7.692E-05	0.00	7.944E-05	0.00	7.421E-05	0.00	8.138E-05	0.00	6.443E-05	0.00	6.369E-05	6.525E-05	6.369E-05	6.525E-05		
23 - 24	5.647E-05	0.00	6.553E-05	0.00	5.177E-05	0.00	6.110E-05	0.00	4.806E-05	0.00	4.957E-05	5.078E-05	4.957E-05	5.078E-05		
24 - 25	4.170E-05	0.00	4.494E-05	0.00	4.084E-05	0.00	4.334E-05	0.00	3.549E-05	0.00	4.046E-05	4.145E-05	4.046E-05	4.145E-05		
25 - 30	1.755E-05	0.00	2.000E-05	0.00	1.698E-05	0.00	1.970E-05	0.00	1.501E-05	0.00	2.159E-05	2.212E-05	2.159E-05	2.212E-05		
30 - 35	6.508E-06	0.00	7.466E-06	0.00	5.758E-06	0.00	4.370E-06	0.00	4.986E-06	0.00	6.164E-06	6.315E-06	6.164E-06	6.315E-06		
35 - 40	1.890E-06	0.00	2.167E-06	0.00	1.487E-06	0.00	2.222E-06	0.00	1.259E-06	0.00	1.622E-06	1.662E-06	1.622E-06	1.662E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		

WAVELENGTH = 3.787821 MICROMETERS

FREQUENCY = 2640.040 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.368E-02	0.00	3.234E-02	0.00	9.142E-03	0.00	2.142E-02	0.00	4.240E-03	0.00	1.414E-02	1.450E-02	6.892E-02	7.055E-02
0 - 1	3.641E-02	0.00	2.669E-02	0.00	7.726E-03	0.00	1.762E-02	0.00	3.861E-03	0.00	9.653E-03	9.896E-03	4.345E-02	4.455E-02
1 - 2	2.566E-02	0.00	1.762E-02	0.00	5.629E-03	0.00	1.212E-02	0.00	3.286E-03	0.00	4.212E-03	4.318E-03	1.398E-02	1.433E-02
2 - 3	1.589E-02	0.00	1.079E-02	0.00	4.012E-03	0.00	8.272E-03	0.00	2.497E-03	0.00	1.797E-03	1.842E-03	4.855E-03	4.978E-03
3 - 4	8.011E-03	0.00	6.273E-03	0.00	2.573E-03	0.00	5.377E-03	0.00	1.736E-03	0.00	8.347E-04	8.557E-04	2.121E-03	2.174E-03
4 - 5	4.558E-03	0.00	3.588E-03	0.00	1.563E-03	0.00	3.357E-03	0.00	1.075E-03	0.00	5.197E-04	5.328E-04	7.747E-04	7.942E-04
5 - 6	2.894E-03	0.00	2.106E-03	0.00	9.680E-04	0.00	1.976E-03	0.00	6.445E-04	0.00	3.796E-04	3.892E-04	3.796E-04	3.892E-04
6 - 7	1.672E-03	0.00	1.322E-03	0.00	5.626E-04	0.00	1.120E-03	0.00	4.117E-04	0.00	3.058E-04	3.135E-04	3.058E-04	3.135E-04
7 - 8	9.693E-04	0.00	8.102E-04	0.00	3.229E-04	0.00	6.364E-04	0.00	2.511E-04	0.00	2.992E-04	3.068E-04	2.992E-04	3.068E-04
8 - 9	5.130E-04	0.00	4.894E-04	0.00	2.056E-04	0.00	3.370E-04	0.00	1.665E-04	0.00	2.974E-04	3.049E-04	2.974E-04	3.049E-04
9 - 10	2.869E-04	0.00	2.986E-04	0.00	1.409E-04	0.00	1.743E-04	0.00	1.205E-04	0.00	2.876E-04	2.948E-04	2.876E-04	2.948E-04
10 - 11	1.610E-04	0.00	1.696E-04	0.00	1.008E-04	0.00	1.161E-04	0.00	8.670E-05	0.00	2.750E-04	2.819E-04	2.750E-04	2.819E-04
11 - 12	9.746E-05	0.00	9.804E-05	0.00	7.489E-05	0.00	8.245E-05	0.00	6.281E-05	0.00	2.728E-04	2.796E-04	2.728E-04	2.796E-04
12 - 13	6.750E-05	0.00	6.368E-05	0.00	5.276E-05	0.00	5.736E-05	0.00	4.520E-05	0.00	2.686E-04	2.754E-04	2.686E-04	2.754E-04
13 - 14	4.590E-05	0.00	4.581E-05	0.00	3.675E-05	0.00	4.099E-05	0.00	3.261E-05	0.00	2.553E-04	2.618E-04	2.553E-04	2.618E-04
14 - 15	3.516E-05	0.00	3.392E-05	0.00	2.687E-05	0.00	3.041E-05	0.00	2.369E-05	0.00	2.450E-04	2.511E-04	2.450E-04	2.511E-04
15 - 16	2.551E-05	0.00	2.390E-05	0.00	1.958E-05	0.00	2.121E-05	0.00	1.718E-05	0.00	2.316E-04	2.374E-04	2.316E-04	2.374E-04
16 - 17	1.753E-05	0.00	1.718E-05	0.00	1.431E-05	0.00	1.628E-05	0.00	1.260E-05	0.00	2.244E-04	2.301E-04	2.244E-04	2.301E-04
17 - 18	1.269E-05	0.00	1.266E-05	0.00	1.054E-05	0.00	1.201E-05	0.00	9.216E-06	0.00	2.195E-04	2.250E-04	2.195E-04	2.250E-04
18 - 19	9.011E-06	0.00	9.262E-06	0.00	7.641E-06	0.00	8.921E-06	0.00	6.752E-06	0.00	1.984E-04	2.034E-04	1.984E-04	2.034E-04
19 - 20	6.358E-06	0.00	6.812E-06	0.00	5.588E-06	0.00	6.665E-06	0.00	4.939E-06	0.00	1.564E-04	1.604E-04	1.564E-04	1.604E-04
20 - 21	4.621E-06	0.00	5.012E-06	0.00	4.174E-06	0.00	4.883E-06	0.00	3.631E-06	0.00	1.141E-04	1.170E-04	1.141E-04	1.170E-04
21 - 22	3.358E-06	0.00	3.739E-06	0.00	3.034E-06	0.00	3.669E-06	0.00	2.677E-06	0.00	8.422E-05	8.633E-05	8.422E-05	8.633E-05
22 - 23	2.430E-06	0.00	2.704E-06	0.00	2.258E-06	0.00	2.748E-06	0.00	1.968E-06	0.00	6.388E-05	6.549E-05	6.388E-05	6.549E-05
23 - 24	1.806E-06	0.00	2.118E-06	0.00	1.642E-06	0.00	2.063E-06	0.00	1.460E-06	0.00	4.972E-05	5.097E-05	4.972E-05	5.097E-05
24 - 25	1.370E-06	0.00	1.544E-06	0.00	1.286E-06	0.00	1.549E-06	0.00	1.090E-06	0.00	4.058E-05	4.160E-05	4.058E-05	4.160E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.165E-05	2.220E-05	2.165E-05	2.220E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.338E-06	6.182E-06	6.338E-06	6.338E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.627E-06	1.668E-06	1.627E-06	1.668E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 - 100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.765103 MICROMETERS

FREQUENCY = 2655.970 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.348E-02	0.00	4.094E-02	0.00	1.336E-02	0.00	2.826E-02	0.00	6.667E-03	0.00	1.422E-02	1.459E-02	6.928E-02	7.110E-02
0 - 1	4.[illegible]2E-02	0.00	3.263E-02	0.00	1.111E-02	0.00	2.259E-02	0.00	6.118E-03	0.00	9.704E-03	9.959E-03	4.358E-02	4.483E-02
1 - 2	2.842E-02	0.00	2.027E-02	0.00	7.823E-03	0.00	1.477E-02	0.00	5.096E-03	0.00	4.234E-03	4.346E-03	1.405E-02	1.442E-02
2 - 3	1.680E-02	0.00	1.208E-02	0.00	5.605E-03	0.00	9.745E-03	0.00	3.938E-03	0.00	1.807E-03	1.854E-03	4.881E-03	5.009E-03
3 - 4	8.679E-03	0.00	7.197E-03	0.00	3.834E-03	0.00	6.443E-03	0.00	2.960E-03	0.00	8.391E-04	8.611E-04	2.132E-03	2.188E-03
4 - 5	5.307E-03	0.00	4.503E-03	0.00	2.707E-03	0.00	4.249E-03	0.00	2.185E-03	0.00	5.225E-04	5.362E-04	7.788E-04	7.992E-04
5 - 6	3.724E-03	0.00	3.128E-03	0.00	2.036E-03	0.00	3.000E-03	0.00	1.669E-03	0.00	3.816E-04	3.916E-04	3.816E-04	3.916E-04
6 - 7	2.615E-03	0.00	2.327E-03	0.00	1.617E-03	0.00	2.076E-03	0.00	1.355E-03	0.00	3.074E-04	3.155E-04	3.074E-04	3.155E-04
7 - 8	1.978E-03	0.00	1.897E-03	0.00	1.279E-03	0.00	1.580E-03	0.00	1.107E-03	0.00	3.008E-04	3.087E-04	3.008E-04	3.087E-04
8 - 9	1.557E-03	0.00	1.469E-03	0.00	1.082E-03	0.00	1.301E-03	0.00	9.420E-04	0.00	2.990E-04	3.068E-04	2.990E-04	3.068E-04
9 - 10	1.250E-03	0.00	1.245E-03	0.00	9.630E-04	0.00	1.010E-03	0.00	8.413E-04	0.00	2.891E-04	2.967E-04	2.891E-04	2.967E-04
10 - 11	1.053E-03	0.00	1.019E-03	0.00	8.146E-04	0.00	9.039E-04	0.00	7.618E-04	0.00	2.764E-04	2.837E-04	2.764E-04	2.837E-04
11 - 12	8.661E-04	0.00	8.496E-04	0.00	7.329E-04	0.00	8.104E-04	0.00	6.843E-04	0.00	2.742E-04	2.814E-04	2.742E-04	2.814E-04
12 - 13	7.404E-04	0.00	7.026E-04	0.00	6.467E-04	0.00	7.251E-04	0.00	6.001E-04	0.00	2.701E-04	2.771E-04	2.701E-04	2.771E-04
13 - 14	5.675E-04	0.00	5.939E-04	0.00	5.591E-04	0.00	6.463E-04	0.00	5.181E-04	0.00	2.567E-04	2.634E-04	2.567E-04	2.634E-04
14 - 15	4.716E-04	0.00	5.325E-04	0.00	4.740E-04	0.00	5.617E-04	0.00	4.395E-04	0.00	2.462E-04	2.527E-04	2.462E-04	2.527E-04
15 - 16	3.614E-04	0.00	4.390E-04	0.00	3.911E-04	0.00	4.508E-04	0.00	3.591E-04	0.00	2.328E-04	2.389E-04	2.328E-04	2.389E-04
16 - 17	2.630E-04	0.00	3.531E-04	0.00	3.190E-04	0.00	3.820E-04	0.00	2.892E-04	0.00	2.256E-04	2.315E-04	2.256E-04	2.315E-04
17 - 18	2.173E-04	0.00	2.850E-04	0.00	2.545E-04	0.00	3.110E-04	0.00	2.274E-04	0.00	2.206E-04	2.264E-04	2.206E-04	2.264E-04
18 - 19	1.806E-04	0.00	2.319E-04	0.00	1.940E-04	0.00	2.490E-04	0.00	1.759E-04	0.00	1.994E-04	2.047E-04	1.994E-04	2.047E-04
19 - 20	1.450E-04	0.00	1.830E-04	0.00	1.504E-04	0.00	1.973E-04	0.00	1.335E-04	0.00	1.573E-04	1.614E-04	1.573E-04	1.614E-04
20 - 21	1.167E-04	0.00	1.427E-04	0.00	1.168E-04	0.00	1.509E-04	0.00	1.004E-04	0.00	1.147E-04	1.177E-04	1.147E-04	1.177E-04
21 - 22	9.218E-05	0.00	1.113E-04	0.00	8.403E-05	0.00	1.154E-04	0.00	7.484E-05	0.00	8.466E-05	8.688E-05	8.456E-05	8.688E-05
22 - 23	7.038E-05	0.00	8.050E-05	0.00	6.678E-05	0.00	8.923E-05	0.00	5.496E-05	0.00	6.422E-05	6.590E-05	6.422E-05	6.590E-05
23 - 24	5.388E-05	0.00	6.847E-05	0.00	4.659E-05	0.00	6.768E-05	0.00	4.049E-05	0.00	4.998E-05	5.129E-05	4.998E-05	5.129E-05
24 - 25	4.146E-05	0.00	4.789E-05	0.00	3.678E-05	0.00	4.940E-05	0.00	2.952E-05	0.00	4.079E-05	4.186E-05	4.079E-05	4.186E-05
25 - 30	1.983E-05	0.00	2.369E-05	0.00	1.565E-05	0.00	2.444E-05	0.00	1.307E-05	0.00	2.177E-05	2.234E-05	2.177E-05	2.234E-05
30 - 35	9.236E-06	0.00	1.096E-05	0.00	6.176E-06	0.00	6.403E-06	0.00	4.984E-06	0.00	6.215E-06	6.378E-06	6.215E-06	6.378E-06
35 - 40	3.277E-06	0.00	3.935E-06	0.00	2.065E-06	0.00	4.229E-06	0.00	1.538E-06	0.00	1.636E-06	1.679E-06	1.636E-06	1.679E-06
40 - 45	1.418E-06	0.00	1.733E-06	0.00	0.	0.00	1.900E-06	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.756334 MICROMETERS

FREQUENCY = 2662.170 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.538E-02	0.00	2.663E-02	0.00	7.903E-03	0.00	1.793E-02	0.00	3.613E-03	0.00	1.425E-02	1.463E-02	6.942E-02	7.127E-02
0 - 1	2.856E-02	0.00	2.123E-02	0.00	6.461E-03	0.00	1.426E-02	0.00	3.213E-03	0.00	9.724E-03	9.983E-03	4.377E-02	4.494E-02
1 - 2	1.879E-02	0.00	1.302E-02	0.00	4.377E-03	0.00	9.139E-03	0.00	2.564E-03	0.00	4.243E-03	4.356E-03	1.408E-02	1.446E-02
2 - 3	1.080E-02	0.00	7.414E-03	0.00	2.892E-03	0.00	5.800E-03	0.00	1.820E-03	0.00	1.810E-03	1.859E-03	4.891E-03	5.022E-03
3 - 4	5.077E-03	0.00	4.024E-03	0.00	1.734E-03	0.00	3.501E-03	0.00	1.187E-03	0.00	8.408E-04	8.632E-04	2.137E-03	2.194E-03
4 - 5	2.720E-03	0.00	2.166E-03	0.00	9.984E-04	0.00	2.046E-03	0.00	7.002E-04	0.00	5.235E-04	5.375E-04	7.804E-04	8.012E-04
5 - 6	1.633E-03	0.00	1.209E-03	0.00	5.946E-04	0.00	1.143E-03	0.00	4.088E-04	0.00	3.824E-04	3.926E-04	3.824E-04	3.926E-04
6 - 7	9.060E-04	0.00	7.300E-04	0.00	3.404E-04	0.00	6.279E-04	0.00	2.575E-04	0.00	3.081E-04	3.163E-04	3.081E-04	3.163E-04
7 - 8	5.189E-04	0.00	4.361E-04	0.00	1.992E-04	0.00	3.438E-04	0.00	1.589E-04	0.00	3.014E-04	3.095E-04	3.014E-04	3.095E-04
8 - 9	2.691E-04	0.00	2.634E-04	0.00	1.292E-04	0.00	1.826E-04	0.00	1.065E-04	0.00	2.996E-04	3.076E-04	2.996E-04	3.076E-04
9 - 10	1.592E-04	0.00	1.631E-04	0.00	8.870E-05	0.00	1.068E-04	0.00	7.661E-05	0.00	2.897E-04	2.974E-04	2.897E-04	2.974E-04
10 - 11	9.537E-05	0.00	9.742E-05	0.00	6.376E-05	0.00	7.257E-05	0.00	5.520E-05	0.00	2.770E-04	2.844E-04	2.770E-04	2.844E-04
11 - 12	6.081E-05	0.00	6.047E-05	0.00	4.696E-05	0.00	5.194E-05	0.00	4.006E-05	0.00	2.748E-04	2.821E-04	2.748E-04	2.821E-04
12 - 13	4.325E-05	0.00	4.055E-05	0.00	3.346E-05	0.00	3.684E-05	0.00	2.890E-05	0.00	2.706E-04	2.778E-04	2.706E-04	2.778E-04
13 - 14	2.940E-05	0.00	2.956E-05	0.00	2.372E-05	0.00	2.674E-05	0.00	2.095E-05	0.00	2.572E-04	2.641E-04	2.572E-04	2.641E-04
14 - 15	2.229E-05	0.00	2.190E-05	0.00	1.735E-05	0.00	1.995E-05	0.00	1.528E-05	0.00	2.467E-04	2.533E-04	2.467E-04	2.533E-04
15 - 16	1.593E-05	0.00	1.540E-05	0.00	1.264E-05	0.00	1.389E-05	0.00	1.108E-05	0.00	2.332E-04	2.395E-04	2.332E-04	2.395E-04
16 - 17	1.082E-05	0.00	1.109E-05	0.00	9.206E-06	0.00	1.069E-05	0.00	8.108E-06	0.00	2.261E-04	2.321E-04	2.261E-04	2.321E-04
17 - 18	7.847E-06	0.00	8.182E-06	0.00	6.775E-06	0.00	7.865E-06	0.00	5.920E-06	0.00	2.211E-04	2.270E-04	2.211E-04	2.270E-04
18 - 19	5.618E-06	0.00	5.956E-06	0.00	4.911E-06	0.00	5.833E-06	0.00	4.324E-06	0.00	1.999E-04	2.052E-04	1.999E-04	2.052E-04
19 - 20	3.990E-06	0.00	4.385E-06	0.00	3.574E-06	0.00	4.348E-06	0.00	3.154E-06	0.00	1.576E-04	1.618E-04	1.576E-04	1.618E-04
20 - 21	2.916E-06	0.00	3.219E-06	0.00	2.659E-06	0.00	3.172E-06	0.00	2.307E-06	0.00	1.150E-04	1.180E-04	1.150E-04	1.180E-04
21 - 22	2.124E-06	0.00	2.393E-06	0.00	1.937E-06	0.00	2.375E-06	0.00	1.689E-06	0.00	8.483E-05	8.709E-05	8.483E-05	8.709E-05
22 - 23	1.538E-06	0.00	1.738E-06	0.00	1.416E-06	0.00	1.764E-06	0.00	1.234E-06	0.00	6.435E-05	6.606E-05	6.435E-05	6.606E-05
23 - 24	1.137E-06	0.00	1.340E-06	0.00	1.030E-06	0.00	1.315E-06	0.00	0.	0.00	5.008E-05	5.141E-05	5.008E-05	5.141E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.087E-05	4.196E-05	4.087E-05	4.196E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.181E-05	2.239E-05	2.181E-05	2.239E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.228E-06	6.394E-06	6.228E-06	6.394E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.639E-06	1.683E-06	1.639E-06	1.683E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH 3.752064 MICROMETERS

FREQUENCY = 2665.200 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	2.370E-02	0.00	1.861E-02	0.00	7.522E-03	0.00	1.347E-02	0.00	4.889E-03	0.00	1.426E-02	1.464E-02	6.949E-02	7.136E-02
0 - 1	1.926E-02	0.00	1.502E-02	0.00	6.380E-03	0.00	1.097E-02	0.00	4.385E-03	0.00	9.733E-03	9.995E-03	4.381E-02	4.499E-02
1 - 2	1.297E-02	0.00	9.669E-03	0.00	4.708E-03	0.00	7.476E-03	0.00	3.642E-03	0.00	4.247E-03	4.361E-03	1.409E-02	1.447E-02
2 - 3	7.982E-03	0.00	6.094E-03	0.00	3.558E-03	0.00	5.158E-03	0.00	2.887E-03	0.00	1.812E-03	1.861E-03	4.896E-03	5.028E-03
3 - 4	4.472E-03	0.00	3.885E-03	0.00	2.584E-03	0.00	3.619E-03	0.00	2.242E-03	0.00	8.416E-04	8.643E-04	2.139E-03	2.196E-03
4 - 5	2.914E-03	0.00	2.592E-03	0.00	1.921E-03	0.00	2.497E-03	0.00	1.720E-03	0.00	5.240E-04	5.381E-04	7.811E-04	8.021E-04
5 - 6	2.106E-03	0.00	1.873E-03	0.00	1.462E-03	0.00	1.850E-03	0.00	1.327E-03	0.00	3.828E-04	3.931E-04	3.828E-04	3.931E-04
6 - 7	1.504E-03	0.00	1.386E-03	0.00	1.143E-03	0.00	1.293E-03	0.00	1.043E-03	0.00	3.084E-04	3.167E-04	3.084E-04	3.167E-04
7 - 8	1.127E-03	0.00	1.097E-03	0.00	8.599E-04	0.00	9.705E-04	0.00	8.084E-04	0.00	3.017E-04	3.098E-04	3.017E-04	3.098E-04
8 - 9	9.477E-04	0.00	8.054E-04	0.00	6.715E-04	0.00	7.646E-04	0.00	6.246E-04	0.00	2.999E-04	3.079E-04	2.999E-04	3.079E-04
9 - 10	6.372E-04	0.00	6.349E-04	0.00	5.433E-04	0.00	5.553E-04	0.00	4.786E-04	0.00	2.900E-04	2.978E-04	2.900E-04	2.978E-04
10 - 11	4.964E-04	0.00	4.791E-04	0.00	4.032E-04	0.00	4.374E-04	0.00	3.627E-04	0.00	2.773E-04	2.847E-04	2.773E-04	2.847E-04
11 - 12	3.737E-04	0.00	3.662E-04	0.00	3.066E-04	0.00	3.304E-04	0.00	2.737E-04	0.00	2.750E-04	2.824E-04	2.750E-04	2.824E-04
12 - 13	2.928E-04	0.00	2.779E-04	0.00	2.303E-04	0.00	2.504E-04	0.00	2.036E-04	0.00	2.709E-04	2.782E-04	2.709E-04	2.782E-04
13 - 14	2.091E-04	0.00	2.080E-04	0.00	1.690E-04	0.00	1.909E-04	0.00	1.513E-04	0.00	2.575E-04	2.644E-04	2.575E-04	2.644E-04
14 - 15	1.631E-04	0.00	1.595E-04	0.00	1.274E-04	0.00	1.441E-04	0.00	1.125E-04	0.00	2.470E-04	2.536E-04	2.470E-04	2.536E-04
15 - 16	1.188E-04	0.00	1.146E-04	0.00	9.378E-05	0.00	1.023E-04	0.00	8.237E-05	0.00	2.335E-04	2.397E-04	2.335E-04	2.397E-04
16 - 17	8.159E-05	0.00	8.236E-05	0.00	6.947E-05	0.00	7.832E-05	0.00	6.083E-05	0.00	2.263E-04	2.324E-04	2.263E-04	2.324E-04
17 - 18	5.964E-05	0.00	6.054E-05	0.00	5.129E-05	0.00	5.839E-05	0.00	4.464E-05	0.00	2.213E-04	2.273E-04	2.213E-04	2.273E-04
18 - 19	4.284E-05	0.00	4.521E-05	0.00	3.684E-05	0.00	4.356E-05	0.00	3.273E-05	0.00	2.001E-04	2.054E-04	2.001E-04	2.054E-04
19 - 20	3.047E-05	0.00	3.317E-05	0.00	2.714E-05	0.00	3.261E-05	0.00	2.387E-05	0.00	1.577E-04	1.620E-04	1.577E-04	1.620E-04
20 - 21	2.215E-05	0.00	2.438E-05	0.00	2.024E-05	0.00	2.384E-05	0.00	1.744E-05	0.00	1.151E-04	1.182E-04	1.151E-04	1.182E-04
21 - 22	1.605E-05	0.00	1.811E-05	0.00	1.417E-05	0.00	1.765E-05	0.00	1.273E-05	0.00	8.492E-05	8.720E-05	8.492E-05	8.720E-05
22 - 23	1.152E-05	0.00	1.259E-05	0.00	1.093E-05	0.00	1.327E-05	0.00	9.233E-06	0.00	6.441E-05	6.614E-05	6.441E-05	6.614E-05
23 - 24	8.454E-06	0.00	1.024E-05	0.00	7.539E-06	0.00	9.818E-06	0.00	6.746E-06	0.00	5.013E-05	5.148E-05	5.013E-05	5.148E-05
24 - 25	6.274E-06	0.00	7.023E-06	0.00	5.864E-06	0.00	6.987E-06	0.00	4.902E-06	0.00	4.201E-05	4.091E-05	4.201E-05	4.201E-05
25 - 30	2.739E-06	0.00	3.196E-06	0.00	2.418E-06	0.00	3.215E-06	0.00	2.080E-06	0.00	2.183E-05	2.242E-05	2.183E-05	2.242E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.234E-06	6.401E-06	6.234E-06	6.401E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.641E-06	1.685E-06	1.641E-06	1.685E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.730953 MICROMETERS

FREQUENCY = 2680.280 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		CLEAR		AEROSOL		HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	6.003E-02	0.00	4.569E-02	0.00	1.386E-02	0.00	3.109E-02	0.00	6.113E-03	0.00	1.433E-02	1.473E-02	6.983E-02	7.178E-02		
0 - 1	4.813E-02	0.00	3.609E-02	0.00	1.128E-02	0.00	2.453E-02	0.00	5.530E-03	0.00	9.781E-03	1.005E-02	4.403E-02	4.526E-02		
1 - 2	3.126E-02	0.00	2.175E-02	0.00	7.481E-03	0.00	1.549E-02	0.00	4.345E-03	0.00	4.268E-03	4.387E-03	1.416E-02	1.456E-02		
2 - 3	1.773E-02	0.00	1.222E-02	0.00	4.862E-03	0.00	9.699E-03	0.00	3.041E-03	0.00	1.821E-03	1.872E-03	4.920E-03	5.057E-03		
3 - 4	8.233E-03	0.00	6.568E-03	0.00	2.863E-03	0.00	5.792E-03	0.00	1.951E-03	0.00	8.458E-04	8.694E-04	2.149E-03	2.209E-03		
4 - 5	4.386E-03	0.00	3.502E-03	0.00	1.625E-03	0.00	3.349E-03	0.00	1.129E-03	0.00	5.266E-04	5.413E-04	7.850E-04	8.069E-04		
5 - 6	2.625E-03	0.00	1.942E-03	0.00	9.528E-04	0.00	1.866E-03	0.00	6.436E-04	0.00	3.847E-04	3.954E-04	3.847E-04	3.954E-04		
6 - 7	1.451E-03	0.00	1.162E-03	0.00	5.370E-04	0.00	1.013E-03	0.00	3.982E-04	0.00	3.099E-04	3.185E-04	3.099E-04	3.185E-04		
7 - 8	8.163E-04	0.00	6.978E-04	0.00	3.034E-04	0.00	5.477E-04	0.00	2.381E-04	0.00	3.032E-04	3.117E-04	3.032E-04	3.117E-04		
8 - 9	4.353E-04	0.00	4.155E-04	0.00	1.929E-04	0.00	2.873E-04	0.00	1.560E-04	0.00	3.014E-04	3.098E-04	3.014E-04	3.098E-04		
9 - 10	2.481E-04	0.00	2.562E-04	0.00	1.331E-04	0.00	1.603E-04	0.00	1.123E-04	0.00	2.914E-04	2.995E-04	2.914E-04	2.995E-04		
10 - 11	1.454E-04	0.00	1.500E-04	0.00	9.391E-05	0.00	1.083E-04	0.00	8.082E-05	0.00	2.786E-04	2.864E-04	2.786E-04	2.864E-04		
11 - 12	9.088E-05	0.00	9.049E-05	0.00	6.940E-05	0.00	7.708E-05	0.00	5.864E-05	0.00	2.764E-04	2.841E-04	2.764E-04	2.841E-04		
12 - 13	6.356E-05	0.00	5.981E-05	0.00	4.924E-05	0.00	5.449E-05	0.00	4.230E-05	0.00	2.722E-04	2.798E-04	2.722E-04	2.798E-04		
13 - 14	4.267E-05	0.00	4.283E-05	0.00	3.457E-05	0.00	3.952E-05	0.00	3.063E-05	0.00	2.587E-04	2.660E-04	2.587E-04	2.660E-04		
14 - 15	3.200E-05	0.00	3.189E-05	0.00	2.537E-05	0.00	2.937E-05	0.00	2.233E-05	0.00	2.482E-04	2.551E-04	2.482E-04	2.551E-04		
15 - 16	2.262E-05	0.00	2.252E-05	0.00	1.846E-05	0.00	2.053E-05	0.00	1.618E-05	0.00	2.346E-04	2.412E-04	2.346E-04	2.412E-04		
16 - 17	1.523E-05	0.00	1.614E-05	0.00	1.350E-05	0.00	1.571E-05	0.00	1.185E-05	0.00	2.274E-04	2.338E-04	2.274E-04	2.338E-04		
17 - 18	1.108E-05	0.00	1.186E-05	0.00	9.918E-06	0.00	1.160E-05	0.00	8.647E-06	0.00	2.224E-04	2.286E-04	2.224E-04	2.286E-04		
18 - 19	8.003E-06	0.00	8.733E-06	0.00	7.149E-06	0.00	8.618E-06	0.00	6.317E-06	0.00	2.010E-04	2.067E-04	2.010E-04	2.067E-04		
19 - 20	5.736E-06	0.00	6.429E-06	0.00	5.230E-06	0.00	6.434E-06	0.00	4.604E-06	0.00	1.585E-04	1.629E-04	1.585E-04	1.629E-04		
20 - 21	4.223E-06	0.00	4.737E-06	0.00	3.901E-06	0.00	4.704E-06	0.00	3.369E-06	0.00	1.156E-04	1.189E-04	1.156E-04	1.189E-04		
21 - 22	3.102E-06	0.00	3.535E-06	0.00	2.802E-06	0.00	3.512E-06	0.00	2.470E-06	0.00	8.533E-05	8.772E-05	8.533E-05	8.772E-05		
22 - 23	2.257E-06	0.00	2.533E-06	0.00	2.104E-06	0.00	2.630E-06	0.00	1.804E-06	0.00	6.473E-05	6.654E-05	6.473E-05	6.654E-05		
23 - 24	1.678E-06	0.00	2.012E-06	0.00	1.505E-06	0.00	1.964E-06	0.00	1.330E-06	0.00	5.038E-05	5.178E-05	5.039E-05	5.178E-05		
24 - 25	1.269E-06	0.00	1.439E-06	0.00	1.175E-06	0.00	1.451E-06	0.00	0.	0.00	4.112E-05	4.226E-05	4.112E-05	4.226E-05		
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.194E-05	2.255E-05	2.194E-05	2.255E-05		
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.264E-06	6.439E-06	6.264E-06	6.439E-06		
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.649E-06	1.695E-06	1.649E-06	1.695E-06		
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.		
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.		0.	0.		
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.		0.	0.		

WAVELENGTH = 3.698252 MICROMETERS

FREQUENCY = 2703.980 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	5.284E-03	0.00	4.132E-03	0.00	1.709E-03	0.00	2.987E-03	0.00	1.175E-03	0.00	1.444E-02	1.487E-02	7.037E-02	7.245E-02
0 - 1	4.265E-03	0.00	3.303E-03	0.00	1.381E-03	0.00	2.388E-03	0.00	9.495E-04	0.00	9.857E-03	1.015E-02	4.437E-02	4.568E-02
1 - 2	2.812E-03	0.00	2.075E-03	0.00	9.746E-04	0.00	1.577E-03	0.00	7.357E-04	0.00	4.301E-03	4.428E-03	1.427E-02	1.469E-02
2 - 3	1.678E-03	0.00	1.259E-03	0.00	6.841E-04	0.00	1.046E-03	0.00	5.411E-04	0.00	1.835E-03	1.889E-03	4.958E-03	5.104E-03
3 - 4	8.867E-04	0.00	7.522E-04	0.00	4.628E-04	0.00	6.824E-04	0.00	3.857E-04	0.00	8.523E-04	8.775E-04	2.166E-03	2.230E-03
4 - 5	5.357E-04	0.00	4.653E-04	0.00	3.136E-04	0.00	4.433E-04	0.00	2.683E-04	0.00	5.307E-04	5.464E-04	7.911E-04	8.144E-04
5 - 6	3.571E-04	0.00	3.042E-04	0.00	2.186E-04	0.00	2.897E-04	0.00	1.879E-04	0.00	3.876E-04	3.991E-04	3.876E-04	3.991E-04
6 - 7	2.327E-04	0.00	2.118E-04	0.00	1.524E-04	0.00	1.901E-04	0.00	1.346E-04	0.00	3.123E-04	3.215E-04	3.123E-04	3.215E-04
7 - 8	1.665E-04	0.00	1.463E-04	0.00	1.079E-04	0.00	1.293E-04	0.00	9.619E-05	0.00	3.056E-04	3.146E-04	3.056E-04	3.146E-04
8 - 9	9.856E-05	0.00	1.029E-04	0.00	7.823E-05	0.00	8.875E-05	0.00	6.962E-05	0.00	3.037E-04	3.127E-04	3.037E-04	3.127E-04
9 - 10	7.482E-05	0.00	7.385E-05	0.00	5.700E-05	0.00	6.290E-05	0.00	5.058E-05	0.00	2.937E-04	3.023E-04	2.937E-04	3.023E-04
10 - 11	5.418E-05	0.00	5.230E-05	0.00	4.175E-05	0.00	4.597E-05	0.00	3.684E-05	0.00	2.808E-04	2.891E-04	2.808E-04	2.891E-04
11 - 12	3.864E-05	0.00	3.783E-05	0.00	3.065E-05	0.00	3.368E-05	0.00	2.695E-05	0.00	2.785E-04	2.867E-04	2.785E-04	2.867E-04
12 - 13	2.905E-05	0.00	2.718E-05	0.00	2.235E-05	0.00	2.467E-05	0.00	1.957E-05	0.00	2.743E-04	2.824E-04	2.743E-04	2.824E-04
13 - 14	2.012E-05	0.00	2.024E-05	0.00	1.620E-05	0.00	1.829E-05	0.00	1.429E-05	0.00	2.607E-04	2.684E-04	2.607E-04	2.684E-04
14 - 15	1.503E-05	0.00	1.506E-05	0.00	1.191E-05	0.00	1.372E-05	0.00	1.048E-05	0.00	2.501E-04	2.575E-04	2.501E-04	2.575E-04
15 - 16	1.096E-05	0.00	1.059E-05	0.00	8.683E-06	0.00	9.546E-06	0.00	7.603E-06	0.00	2.364E-04	2.434E-04	2.364E-04	2.434E-04
16 - 17	7.435E-06	0.00	7.625E-06	0.00	6.324E-06	0.00	7.355E-06	0.00	5.565E-06	0.00	2.292E-04	2.359E-04	2.292E-04	2.359E-04
17 - 18	5.391E-06	0.00	5.625E-06	0.00	4.652E-06	0.00	5.407E-06	0.00	4.061E-06	0.00	2.241E-04	2.307E-04	2.241E-04	2.307E-04
18 - 19	3.854E-06	0.00	4.090E-06	0.00	3.367E-06	0.00	4.006E-06	0.00	2.962E-06	0.00	2.026E-04	2.086E-04	2.026E-04	2.086E-04
19 - 20	2.732E-06	0.00	3.007E-06	0.00	2.446E-06	0.00	2.982E-06	0.00	2.156E-06	0.00	1.597E-04	1.644E-04	1.597E-04	1.644E-04
20 - 21	1.991E-06	0.00	2.201E-06	0.00	1.814E-06	0.00	2.168E-06	0.00	1.571E-06	0.00	1.165E-04	1.200E-04	1.165E-04	1.200E-04
21 - 22	1.443E-06	0.00	1.628E-06	0.00	1.314E-06	0.00	1.617E-06	0.00	1.144E-06	0.00	8.599E-05	8.853E-05	8.599E-05	8.853E-05
22 - 23	1.039E-06	0.00	1.177E-06	0.00	0.	0.00	1.195E-06	0.00	0.	0.00	6.523E-05	6.715E-05	6.523E-05	6.715E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.076E-05	5.226E-05	5.076E-05	5.226E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.143E-05	4.266E-05	4.143E-05	4.266E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.211E-05	2.276E-05	2.211E-05	2.276E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.313E-06	6.499E-06	6.313E-06	6.499E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.661E-06	1.710E-06	1.661E-06	1.710E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.666522 MICROMETERS

FREQUENCY = 2727.380 WAVENUMBERS

HT(KM)	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	3.781E-02	0.00	2.663E-02	0.00	6.526E-03	0.00	1.671E-02	0.00	2.721E-03	0.00	1.455E-02	1.500E-02	7.090E-02	7.311E-02
0 - 1	2.975E-02	0.00	2.090E-02	0.00	5.283E-03	0.00	1.304E-02	0.00	2.449E-03	0.00	9.931E-03	1.024E-02	4.471E-02	4.610E-02
1 - 2	1.859E-02	0.00	1.235E-02	0.00	3.481E-03	0.00	7.999E-03	0.00	1.932E-03	0.00	4.334E-03	4.468E-03	1.438E-02	1.483E-02
2 - 3	1.023E-02	0.00	6.697E-03	0.00	2.242E-03	0.00	4.862E-03	0.00	1.345E-03	0.00	1.849E-03	1.907E-03	4.996E-03	5.151E-03
3 - 4	4.547E-03	0.00	3.442E-03	0.00	1.300E-03	0.00	2.824E-03	0.00	8.576E-04	0.00	8.588E-04	8.855E-04	2.182E-03	2.250E-03
4 - 5	2.281E-03	0.00	1.755E-03	0.00	7.236E-04	0.00	1.584E-03	0.00	4.945E-04	0.00	5.347E-04	5.513E-04	7.970E-04	8.218E-04
5 - 6	1.298E-03	0.00	9.325E-04	0.00	4.199E-04	0.00	8.494E-04	0.00	2.844E-04	0.00	3.906E-04	4.027E-04	3.906E-04	4.027E-04
6 - 7	6.849E-04	0.00	5.394E-04	0.00	2.370E-04	0.00	4.489E-04	0.00	1.787E-04	0.00	3.146E-04	3.244E-04	3.146E-04	3.244E-04
7 - 8	3.725E-04	0.00	3.130E-04	0.00	1.370E-04	0.00	2.397E-04	0.00	1.107E-04	0.00	3.079E-04	3.174E-04	3.079E-04	3.174E-04
8 - 9	1.915E-04	0.00	1.838E-04	0.00	8.910E-05	0.00	1.268E-04	0.00	7.458E-05	0.00	3.060E-04	3.155E-04	3.060E-04	3.155E-04
9 - 10	1.100E-04	0.00	1.128E-04	0.00	6.234E-05	0.00	7.349E-05	0.00	5.382E-05	0.00	2.959E-04	3.051E-04	2.959E-04	3.051E-04
10 - 11	6.571E-05	0.00	6.718E-05	0.00	4.462E-05	0.00	5.044E-05	0.00	3.878E-05	0.00	2.829E-04	2.917E-04	2.829E-04	2.917E-04
11 - 12	4.217E-05	0.00	4.195E-05	0.00	3.289E-05	0.00	3.606E-05	0.00	2.815E-05	0.00	2.806E-04	2.893E-04	2.806E-04	2.893E-04
12 - 13	3.026E-05	0.00	2.851E-05	0.00	2.348E-05	0.00	2.563E-05	0.00	2.031E-05	0.00	2.764E-04	2.850E-04	2.754E-04	2.850E-04
13 - 14	2.077E-05	0.00	2.075E-05	0.00	1.663E-05	0.00	1.865E-05	0.00	1.473E-05	0.00	2.627E-04	2.709E-04	2.627E-04	2.709E-04
14 - 15	1.589E-05	0.00	1.542E-05	0.00	1.220E-05	0.00	1.388E-05	0.00	1.074E-05	0.00	2.520E-04	2.599E-04	2.520E-04	2.599E-04
15 - 16	1.146E-05	0.00	1.087E-05	0.00	8.891E-06	0.00	9.680E-06	0.00	7.791E-06	0.00	2.382E-04	2.456E-04	2.382E-04	2.456E-04
16 - 17	7.826E-06	0.00	7.799E-06	0.00	6.496E-06	0.00	7.425E-06	0.00	5.709E-06	0.00	2.309E-04	2.381E-04	2.309E-04	2.381E-04
17 - 18	5.669E-06	0.00	5.739E-06	0.00	4.780E-06	0.00	5.473E-06	0.00	4.171E-06	0.00	2.258E-04	2.328E-04	2.258E-04	2.328E-04
18 - 19	4.036E-06	0.00	4.200E-06	0.00	3.454E-06	0.00	4.061E-06	0.00	3.050E-06	0.00	2.041E-04	2.105E-04	2.041E-04	2.105E-04
19 - 20	2.852E-06	0.00	3.084E-06	0.00	2.522E-06	0.00	3.029E-06	0.00	2.225E-06	0.00	1.609E-04	1.659E-04	1.609E-04	1.659E-04
20 - 21	2.072E-06	0.00	2.263E-06	0.00	1.878E-06	0.00	2.211E-06	0.00	1.629E-06	0.00	1.174E-04	1.211E-04	1.174E-04	1.211E-04
21 - 22	1.502E-06	0.00	1.681E-06	0.00	1.354E-06	0.00	1.652E-06	0.00	1.193E-06	0.00	8.664E-05	8.934E-05	8.654E-05	8.934E-05
22 - 23	1.082E-06	0.00	1.206E-06	0.00	1.006E-06	0.00	1.232E-06	0.00	0.	0.00	6.572E-05	6.776E-05	6.572E-05	6.776E-05
23 - 24	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	5.115E-05	5.274E-05	5.115E-05	5.274E-05
24 - 25	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	4.175E-05	4.304E-05	4.175E-05	4.304E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.228E-05	2.297E-05	2.228E-05	2.297E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.361E-06	6.558E-06	6.361E-06	6.558E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.674E-06	1.726E-06	1.674E-06	1.726E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.

WAVELENGTH = 3.636298 MICROMETERS

FREQUENCY = 2750.050 WAVENUMBERS

	TROPICAL		MIDLATITUDE SUMMER		MIDLATITUDE WINTER		SUBARCTIC SUMMER		SUBARCTIC WINTER		AEROSOL CLEAR		AEROSOL HAZY	
HT(KM)	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_m(km^{-1})$	$\sigma_m(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$	$k_a(km^{-1})$	$\sigma_a(km^{-1})$
0	4.009E-02	.00	3.023E-02	.00	8.976E-03	.00	2.040E-02	.00	4.025E-03	.00	1.466E-02	1.513E-02	7.142E-02	7.375E-02
0 - 1	3.246E-02	.00	2.418E-02	.00	7.441E-03	.00	1.631E-02	.00	3.722E-03	.00	1.000E-02	1.033E-02	4.503E-02	4.650E-02
1 - 2	2.151E-02	.00	1.491E-02	.00	5.089E-03	.00	1.055E-02	.00	3.013E-03	.00	4.365E-03	4.507E-03	1.449E-02	1.496E-02
2 - 3	1.243E-02	.00	8.542E-03	.00	3.408E-03	.00	6.753E-03	.00	2.175E-03	.00	1.863E-03	1.923E-03	5.032E-03	5.196E-03
3 - 4	5.865E-03	.00	4.674E-03	.00	2.065E-03	.00	4.122E-03	.00	1.445E-03	.00	8.650E-04	8.932E-04	2.198E-03	2.270E-03
4 - 5	3.171E-03	.00	2.535E-03	.00	1.213E-03	.00	2.429E-03	.00	8.777E-04	.00	5.386E-04	5.561E-04	8.028E-04	8.290E-04
5 - 6	1.928E-03	.00	1.436E-03	.00	7.400E-04	.00	1.391E-03	.00	5.342E-04	.00	3.934E-04	4.062E-04	3.934E-04	4.062E-04
6 - 7	1.085E-03	.00	8.747E-04	.00	4.439E-04	.00	7.749E-04	.00	3.552E-04	.00	3.169E-04	3.273E-04	3.169E-04	3.273E-04
7 - 8	6.227E-04	.00	5.449E-04	.00	2.680E-04	.00	4.386E-04	.00	2.336E-04	.00	3.101E-04	3.202E-04	3.101E-04	3.202E-04
8 - 9	3.528E-04	.00	3.343E-04	.00	1.835E-04	.00	2.514E-04	.00	1.648E-04	.00	3.082E-04	3.183E-04	3.082E-04	3.183E-04
9 - 10	2.098E-04	.00	2.177E-04	.00	1.381E-04	.00	1.515E-04	.00	1.217E-04	.00	2.980E-04	3.077E-04	2.980E-04	3.077E-04
10 - 11	1.332E-04	.00	1.367E-04	.00	9.986E-05	.00	1.090E-04	.00	8.883E-05	.00	2.849E-04	2.942E-04	2.849E-04	2.942E-04
11 - 12	9.000E-05	.00	9.026E-05	.00	7.449E-05	.00	7.859E-05	.00	6.533E-05	.00	2.827E-04	2.919E-04	2.827E-04	2.919E-04
12 - 13	6.764E-05	.00	6.499E-05	.00	5.402E-05	.00	5.673E-05	.00	4.776E-05	.00	2.784E-04	2.875E-04	2.784E-04	2.875E-04
13 - 14	4.856E-05	.00	4.790E-05	.00	3.860E-05	.00	4.186E-05	.00	3.503E-05	.00	2.646E-04	2.732E-04	2.646E-04	2.732E-04
14 - 15	3.868E-05	.00	3.608E-05	.00	2.881E-05	0.00	3.126E-05	0.00	2.587E-05	0.00	2.538E-04	2.621E-04	2.538E-04	2.621E-04
15 - 16	2.907E-05	.00	2.569E-05	0.00	2.120E-05	0.00	2.214E-05	0.00	1.909E-05	0.00	2.400E-04	2.478E-04	2.400E-04	2.478E-04
16 - 17	2.046E-05	0.00	1.844E-05	0.00	1.575E-05	0.00	1.700E-05	0.00	1.425E-05	0.00	2.326E-04	2.402E-04	2.326E-04	2.402E-04
17 - 18	1.478E-05	0.00	1.360E-05	0.00	1.172E-05	0.00	1.274E-05	0.00	1.057E-05	0.00	2.275E-04	2.349E-04	2.275E-04	2.349E-04
18 - 19	1.034E-05	0.00	1.018E-05	0.00	8.540E-06	0.00	9.565E-06	0.00	7.853E-06	0.00	2.056E-04	2.123E-04	2.056E-04	2.123E-04
19 - 20	7.224E-06	0.00	7.512E-06	0.00	6.374E-06	0.00	7.200E-06	0.00	5.802E-06	0.00	1.621E-04	1.674E-04	1.621E-04	1.674E-04
20 - 21	5.196E-06	0.00	5.567E-06	0.00	4.806E-06	0.00	5.306E-06	0.00	4.293E-06	0.00	1.183E-04	1.221E-04	1.183E-04	1.221E-04
21 - 22	3.753E-06	0.00	4.175E-06	0.00	3.445E-06	0.00	3.959E-06	0.00	3.176E-06	0.00	8.727E-05	9.012E-05	8.727E-05	9.012E-05
22 - 23	2.721E-06	0.00	2.953E-06	0.00	2.641E-06	0.00	2.988E-06	0.00	2.338E-06	0.00	6.620E-05	6.836E-05	6.620E-05	6.836E-05
23 - 24	2.037E-06	0.00	2.375E-06	0.00	1.884E-06	0.00	2.233E-06	0.00	1.729E-06	0.00	5.152E-05	5.320E-05	5.152E-05	5.320E-05
24 - 25	1.541E-06	0.00	1.672E-06	0.00	1.479E-06	0.00	1.618E-06	0.00	1.274E-06	0.00	4.342E-05	4.205E-05	4.342E-05	4.205E-05
25 - 30	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	2.244E-05	2.317E-05	2.244E-05	2.317E-05
30 - 35	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	6.407E-06	6.616E-06	6.407E-06	6.616E-06
35 - 40	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	1.686E-06	1.741E-06	1.686E-06	1.741E-06
40 - 45	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
45 - 50	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
50 - 70	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.
70 -100	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.00	0.	0.	0.	0.